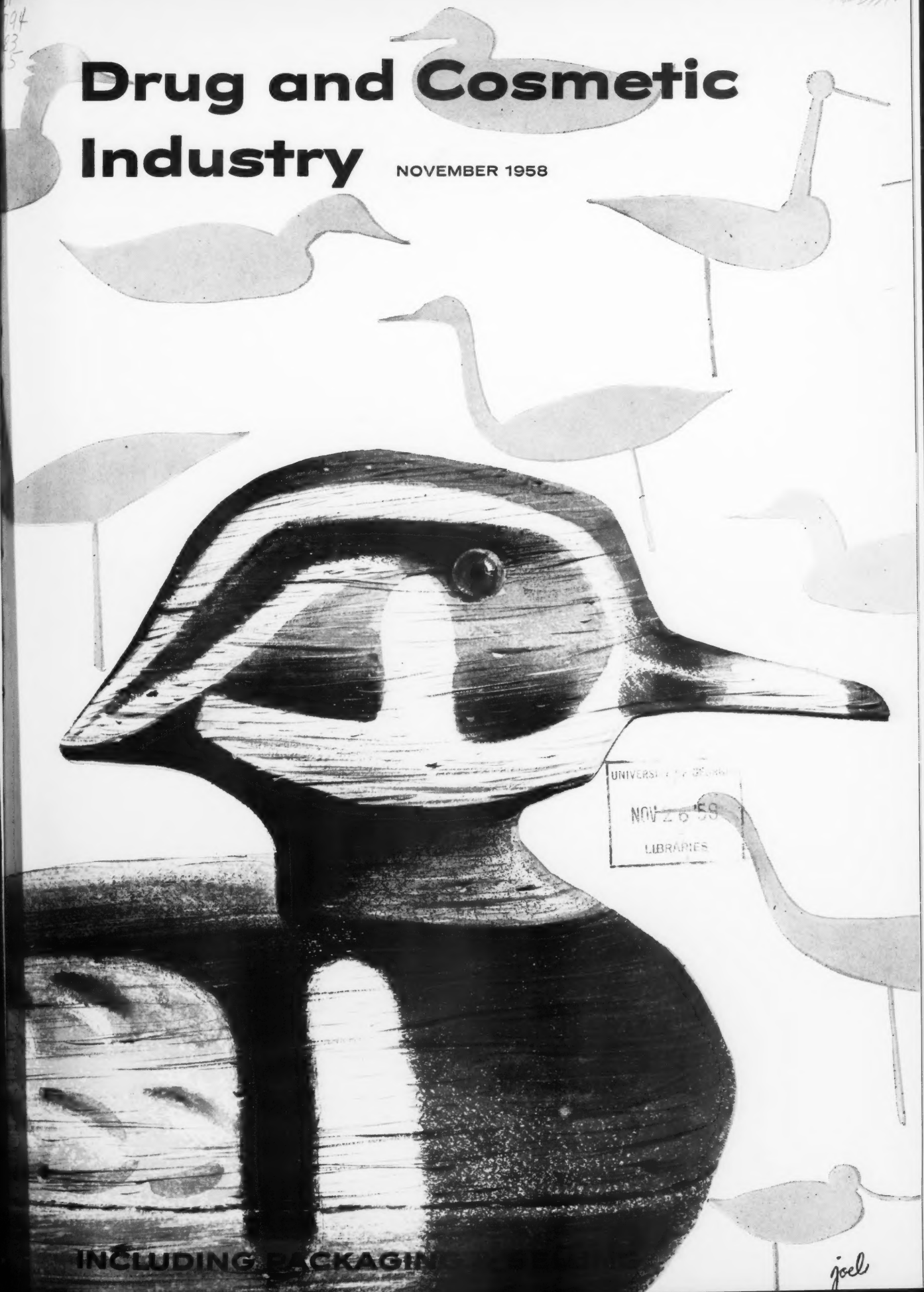
Drug and Cosmetic Industry

NOVEMBER 1958



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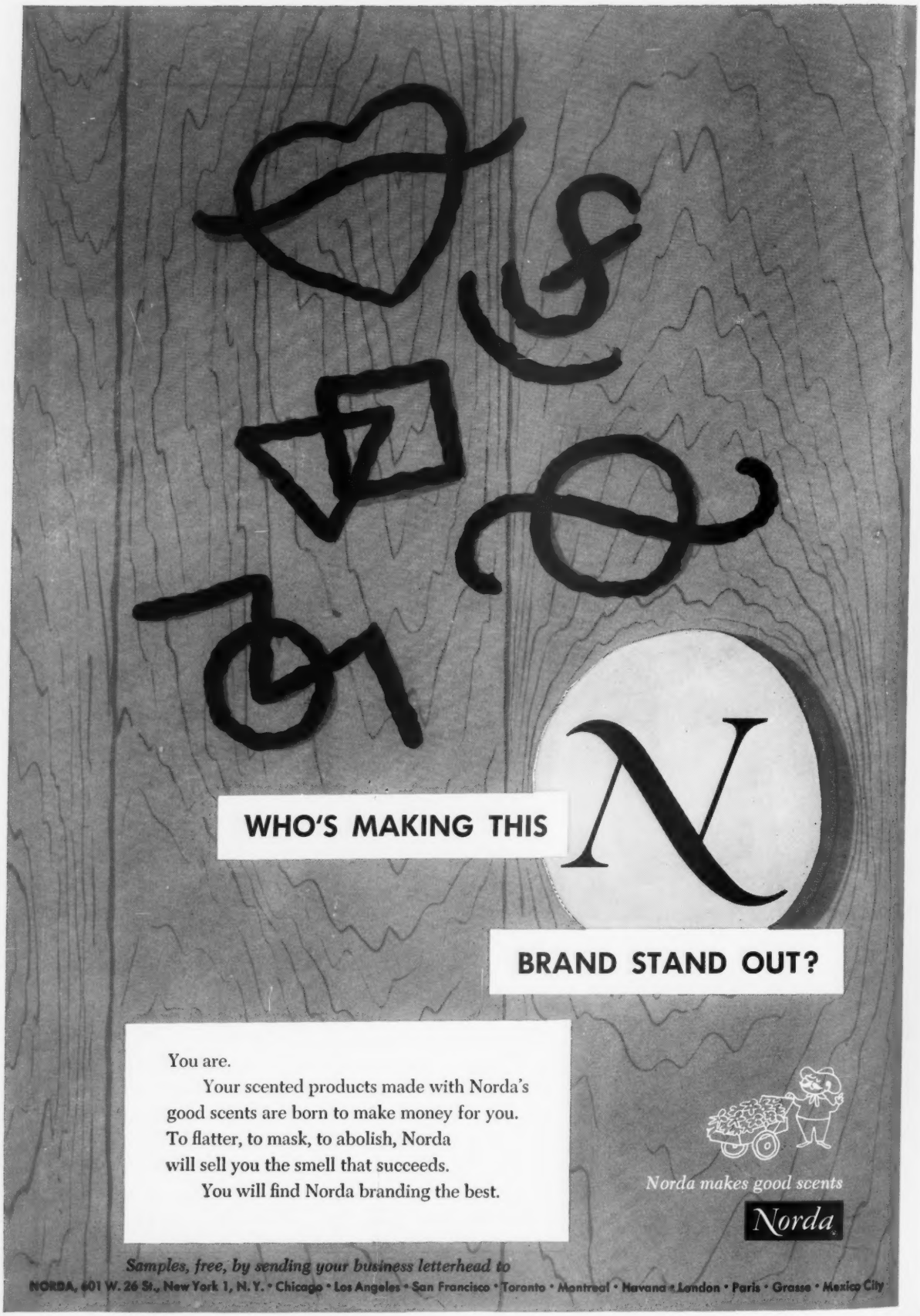
WHO'S MAKING THIS
N
BRAND STAND OUT?
You are.
Your scented products made with Norda's good scents are born to make money for you. To flatter, to mask, to abolish, Norda will sell you the smell that succeeds.
You will find Norda branding the best.
Norda makes good scents
Norda
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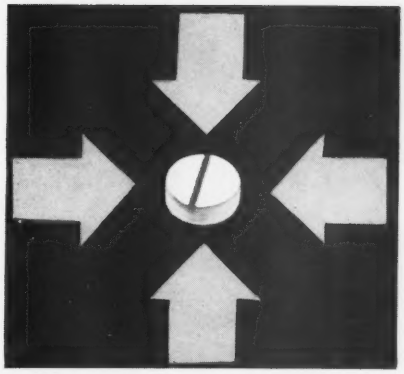

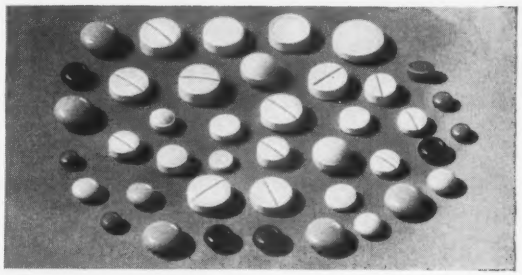

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- *You get* vitamin E tablets that are snow white, small, highly potent (100 mg., even 200 mg.), reassuringly stable, and pharmaceutically elegant.
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Rely, too, on Roche Process, Roche Progress for *liquid forms* of vitamin E — *Vitamin E Acetate Roche* [dl-alpha-Tocopherol (yl) Acetate]. 1 milligram equals 1 International Unit. This is the International Reference Standard for vitamin E. *Vitamin E Roche* [dl-alpha-Tocopherol (unesterified)]. 1 milligram equals 1.1 International Unit. The latter, as you know, has a highly useful antioxidant, as well as vitamin E value.

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Drug and Cosmetic Industry

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THE BEST BASIS TO BUILD BETTER FLAVOR

There's an unvarying excellence and a dependable uniformity that makes it best for the taste you want. Produced by a unique patented process, Zimco is the *Original* Pure Lignin Vanillin. Its fine flavor and aroma are the result of continuous research and development.

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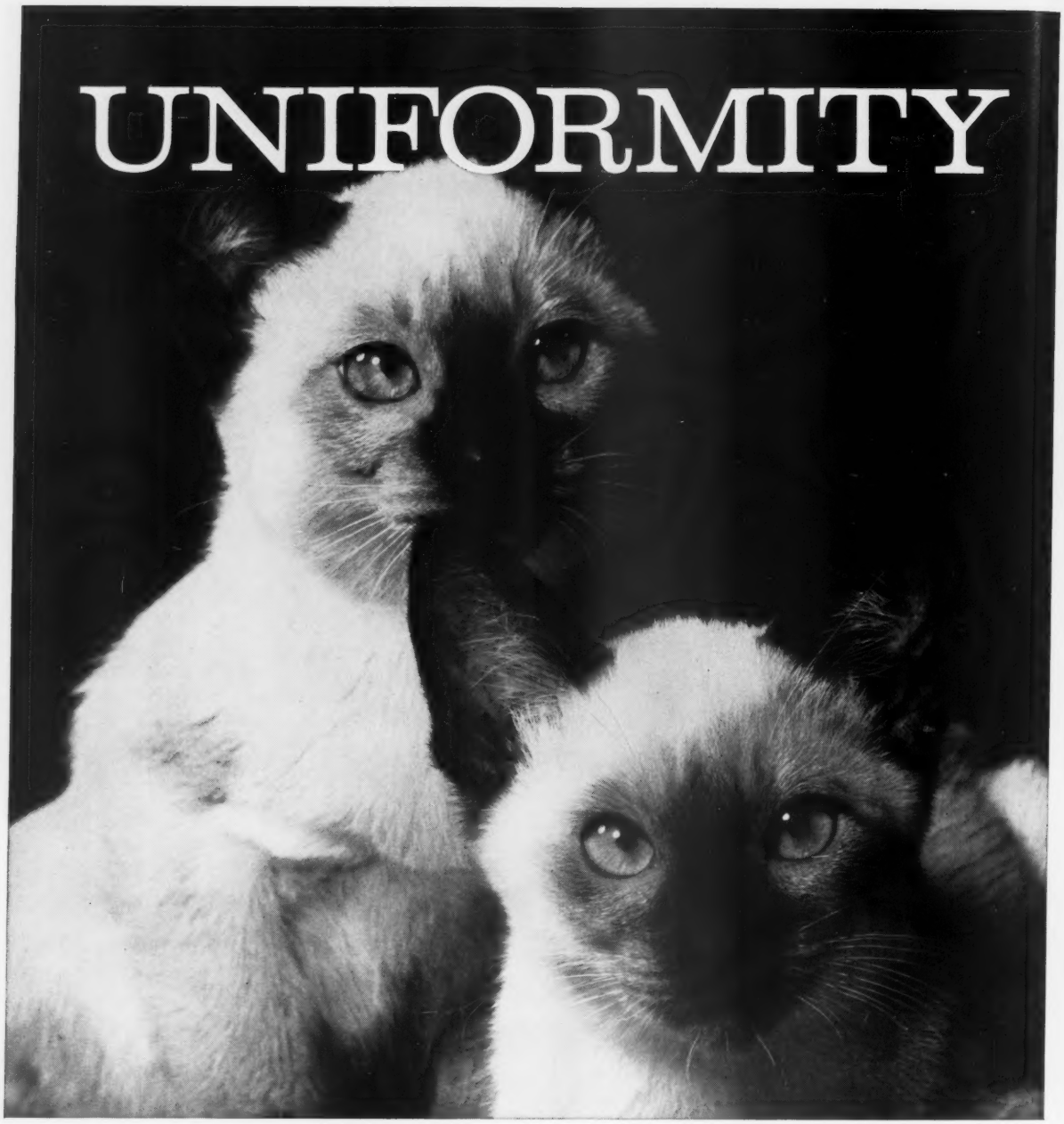

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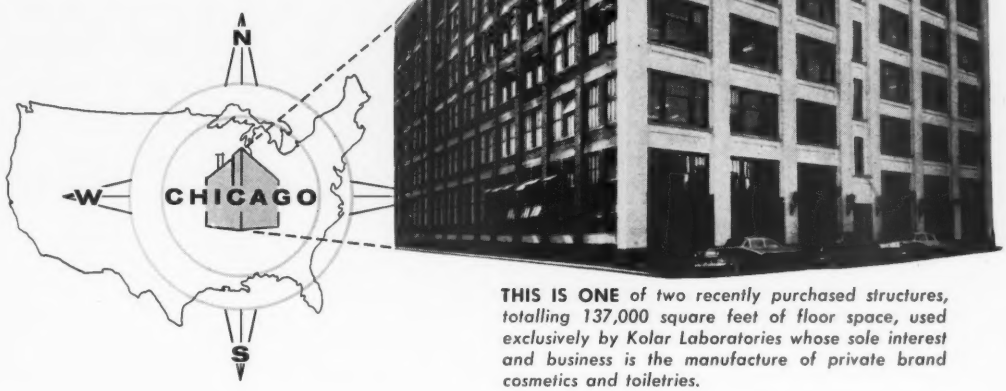
IN CANADA: Standard Chemical Limited

Here's the SOLUTION

Kolar's Low Cost Midwestern Private Brand Cosmetic Manufacturing!



THIS IS ONE *of two recently purchased structures, totalling 137,000 square feet of floor space, used exclusively by Kolar Laboratories whose sole interest and business is the manufacture of private brand cosmetics and toiletries.*

IF YOU DISTRIBUTE COSMETICS OR TOILETRIES...

. . . and are seeking ways to offset rising costs and advancing freight rates, you need not undertake capital financing to build, equip and staff a new plant . . . tie up more money in fixed overhead . . . or assume added production, payroll and personnel problems. All or any part of your manufacturing and packaging (in meeting uncertain or peak load demands) can be handled more cheaply from Kolar's Midwest location.

Kolar is set up to handle a big volume of work. Its personnel know the importance of accurate process control and the need for trimming costs. They are skilled in maintaining quality and expediting production—to meet schedules on time. The whole operation, including Kolar's favorable location, offers benefits that really cannot be matched.

Centrally situated at the nation's hub of transportation, with suppliers of glass and ingredients at its very doorstep, Kolar CAN MANUFACTURE, PACKAGE AND SHIP CHEAPER. If you would like to operate more profitably, ship NORTH, SOUTH, EAST, or WEST at lower cost, and free yourself from production worries—Kolar does have the solution. Phone or write:

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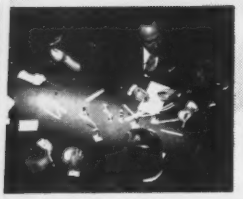
New York Area: 50-48 St., P. O. Box 807, Weehawken, New Jersey, Phone: Union 6-1277

Creative Perfumer

Production

Cosmetic Research



Perfume Evaluation Board

Aromatic
Chemical Research

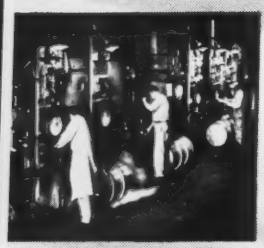
People...

Sales

THE IMPORTANT INGREDIENT

Chemical Engineering

A successful perfume is a combination of the talents of many people . . . each concentrating his specialized abilities to achieve the right fragrance for your product.



Aromatic Production

The Research Chemist

plays a vital role long before the perfumer creates his formula. Surrounded by the complex tools of modern chemistry, he learns more each day how nature produces her masterpieces of fragrance. Through synthesis, he also discovers ***new aromatic bodies*** not found in nature. From laboratory to pilot plant and then into factory production, new (and better) aromatic materials are provided . . . at lower cost, with uniform quality and of almost unlimited availability. These new materials often serve as the inspiration for a totally new concept in fragrance.

At the VAH Research Center in Union Beach, N. J., several thousand aromatic materials have been synthesized . . . many are already important ingredients in modern perfumes that are setting new style trends.

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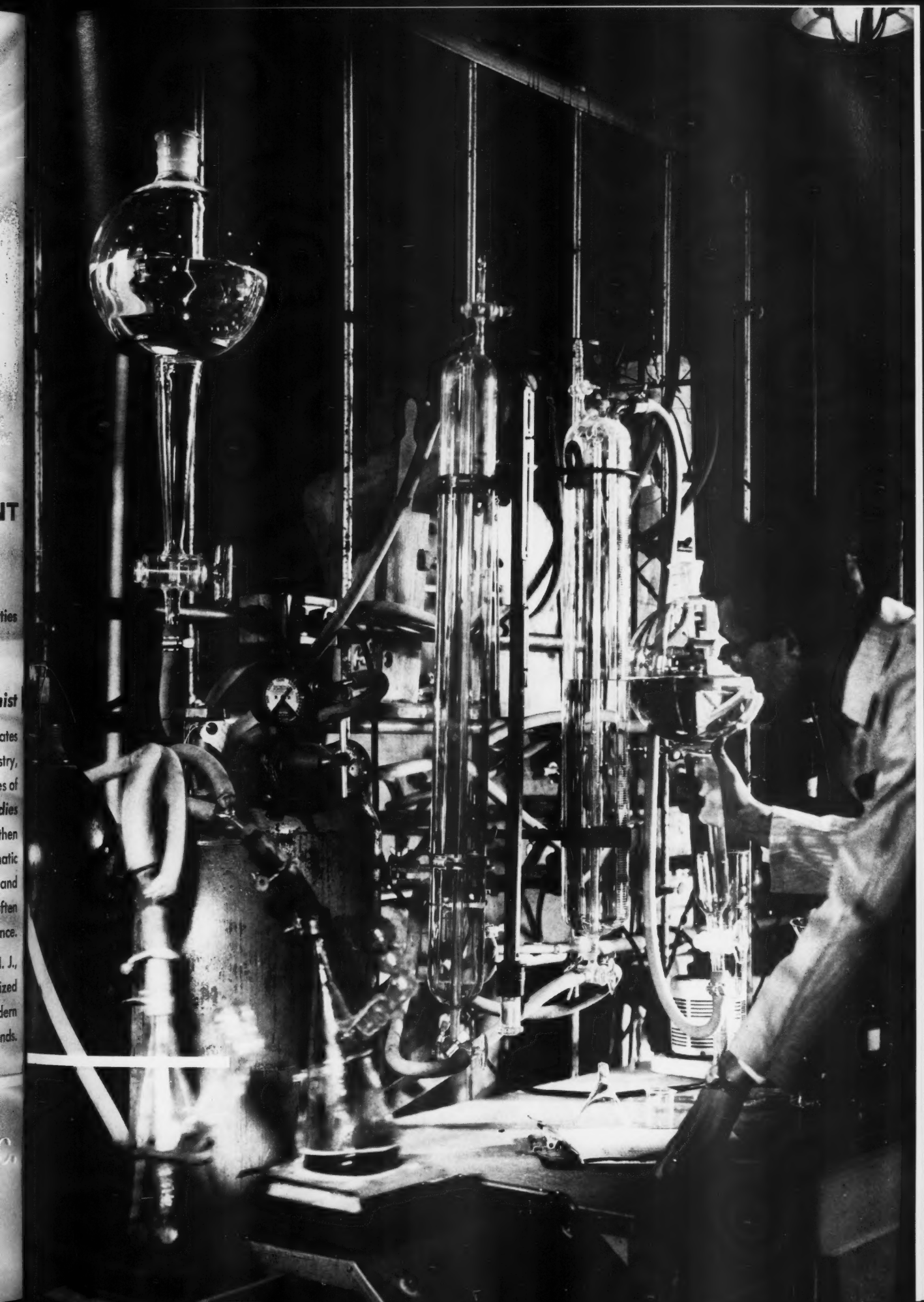

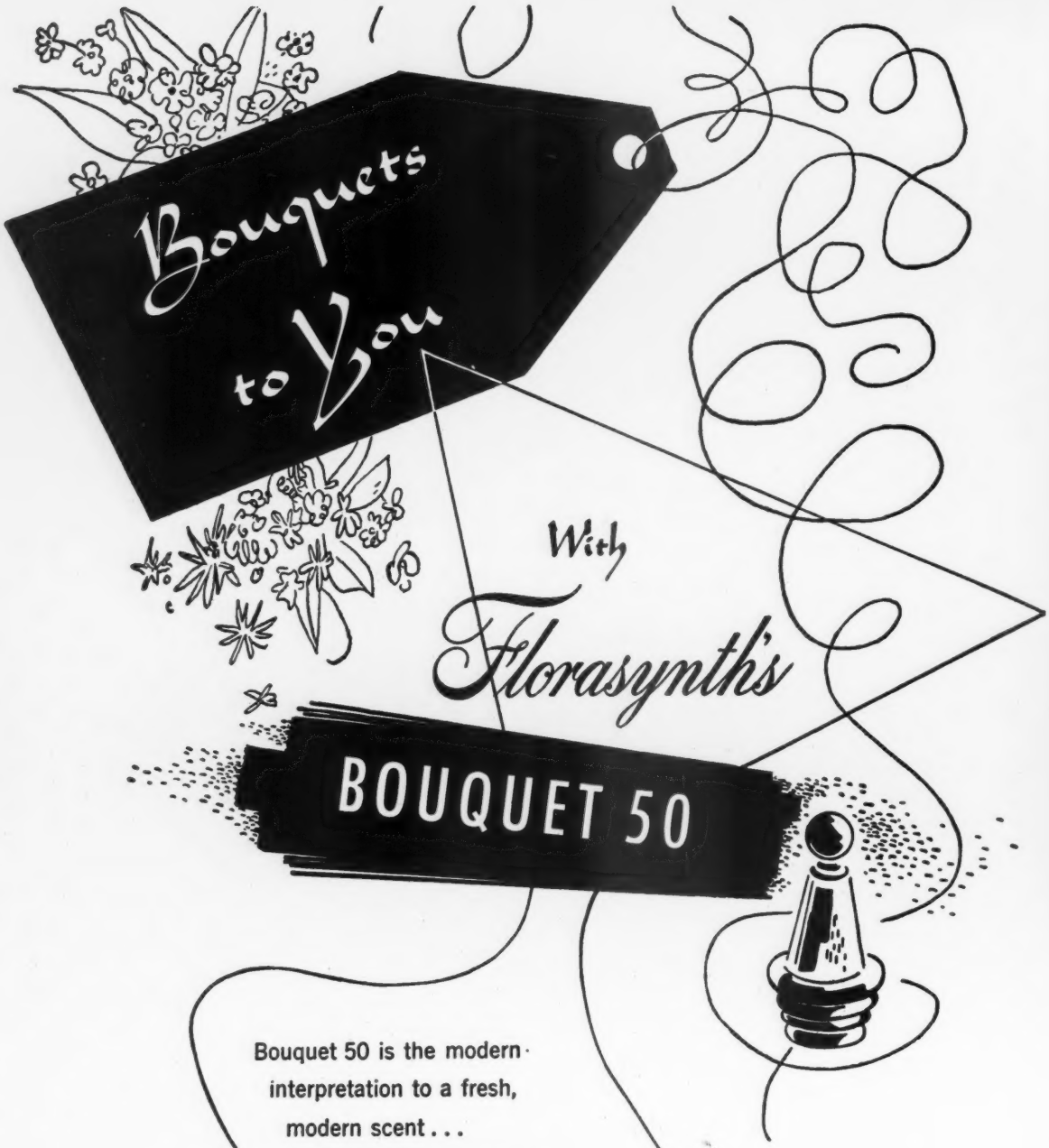

Bouquet 50 is the modern interpretation to a fresh, modern scent . . . the search for the new and intriguing . . . distinctly different . . . timed for successful products . . . all-ways . . .

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3. Compatible with all aersol propellents.
4. Can be incorporated at room temperature by simple mixing.
5. Prevents valve clogging due to crystallization and sedimentation of suspended solid ingredients.
6. Imparts sheen.

For details see our Product Bulletin 53

ROBINSON WAGNER CO., INC.

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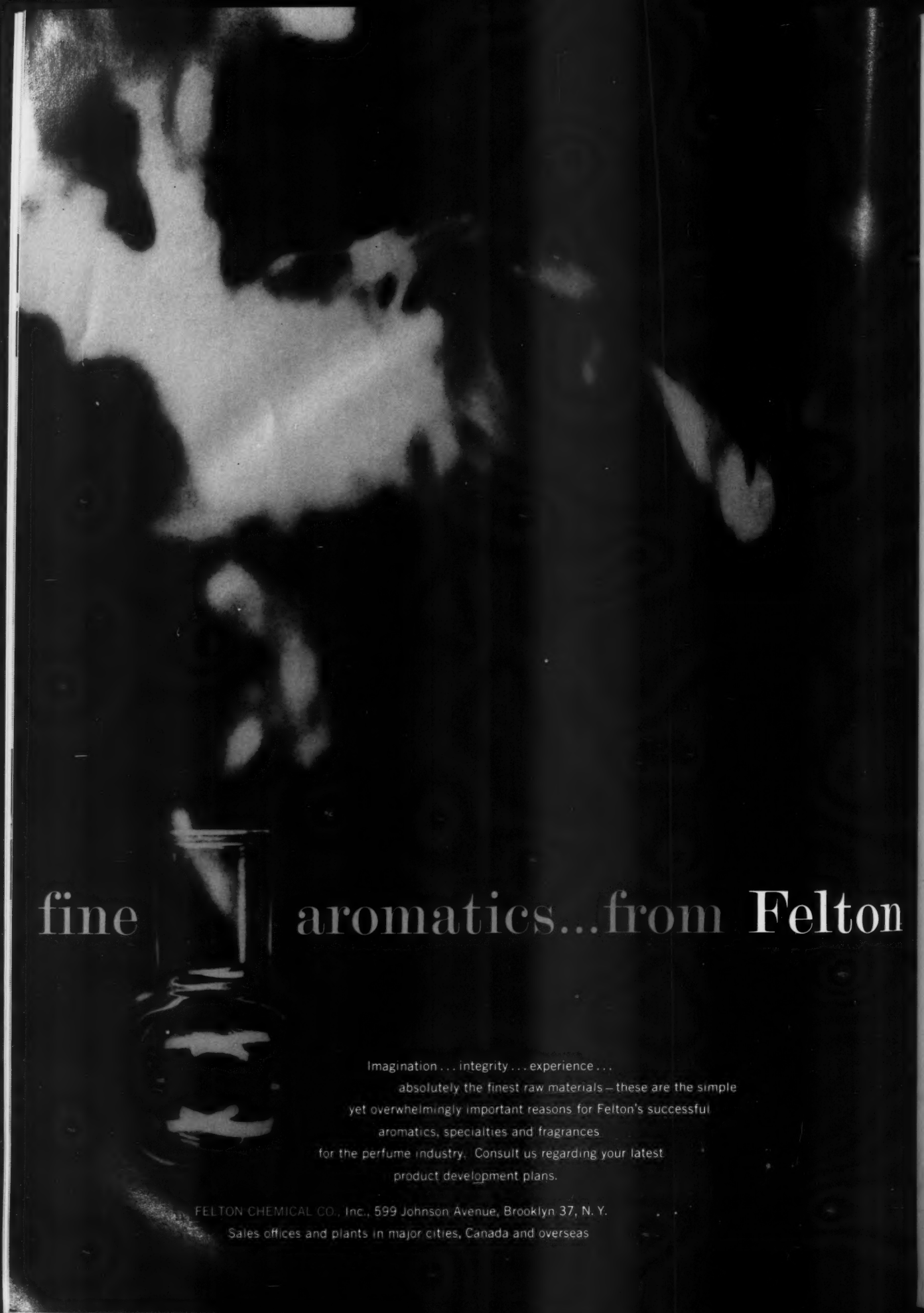
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absolutely the finest raw materials – these are the simple
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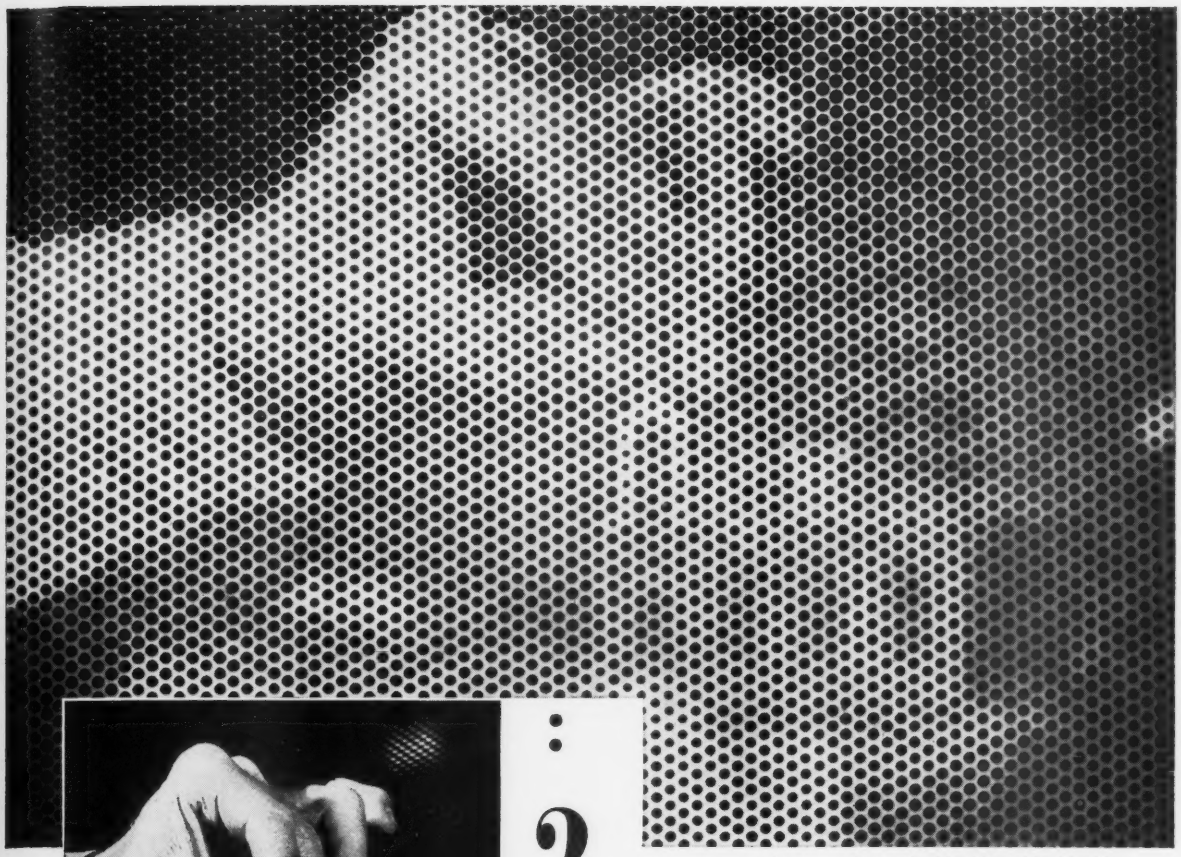
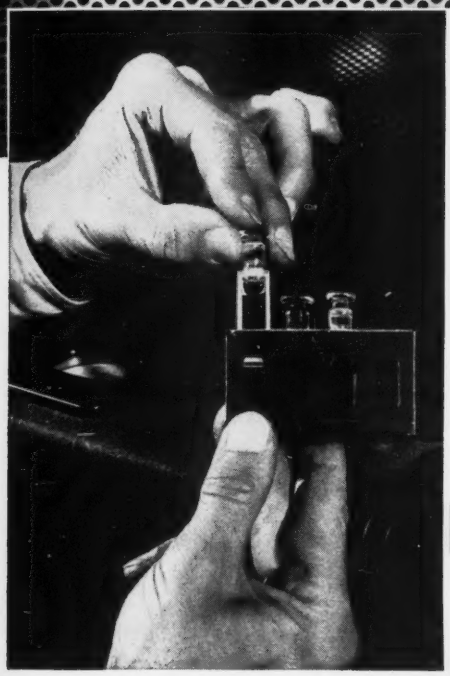




2 parts in 1,000,000

Using Spectrophotometric Analysis we detect impurities in White Oils which heretofore defied ordinary testing—even amounts as low as 2 parts per million. This permits positive control of the refining process and the elimination of those substances which gradually decompose and impart an objectionable odor to the oils upon exposure to light.

result: *Highest order of light stability and purity ever assured in White Oils.*

Penn-Drake® **WHITE OILS**

Write for Further Details on Spectrophotometric Control— or for Detailed Specifications.

penn drake products

PENNSYLVANIA REFINING COMPANY
BUTLER, PENNSYLVANIA
Branches: Cleveland, Ohio and Edgewater, N. J.

CHEMICAL NEWS *about push-button profits*

Once upon a time a "package" was a bottle, a box, a paper bag, a tube. The package served simply as a container, made no special demands on the contents. These days products have to learn new tricks—and the package calls the tune! New containers make pharmaceutical specialties dispense automatically. For alert merchandisers these packages can deliver extra share-of-market . . . *IF* their product can be made to behave in the new package. Here's profitable news about chemicals that can help meet the demands of this new age . . .

You may wish to check certain items in this advertisement and forward to those concerned in your company.

Route to:

_____

_____

_____

_____

NEW SYNTHETIC GUM IMPROVES AEROSOL DISPENSING

Power-packed aerosol packages are putting the pressure on old products to learn new tricks. In toothpaste, for example, this new packaging idea demands that today's product be super-dispensable . . . flow out more smoothly than ever, without sputter, and with a creamy texture. And that it *stay* that way.

This job may call for Methocel® 60 HG—a new, superior emulsion stabilizer and thickening agent that holds ingredients in suspension, gives the paste better flow characteristics, keeps it from gelling. You may find the answer to your aerosol dispensing problems in this new synthetic gum, Methocel 60 HG.

The roll-on dispensers, too, have found Methocel 60 HG an ideal agent. Now in use in the new roll-on types of deodorants, it is more effective than most natural gums (or synthetics, for that matter) as an emulsifier and emulsion stabilizer. The reason: Methocel is surface active . . . lowers the surface tension of water. Plus factor for emulsion chemists: Methocel 60 HG, and other Methocel types, can be added directly into the oil slurry before adding water.

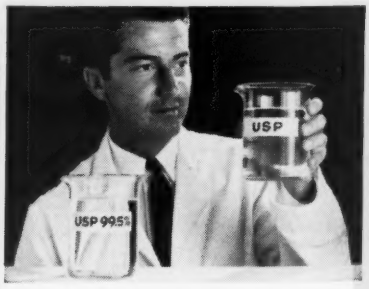
Many processors recognize the advantages of synthetic Methocel over other gums. They include: uniformity of properties, closer control of purity, steady production, unlimited availability and stable price. Then there are

DOW CHEMICALS

four more of profitable importance

DOWANOL® DPM

Dipropylene glycol methyl ether makes an ideal coupling agent for pharmaceuticals. Toxicity is low, solvent action high, profit performance excellent.



GLYCERINE

Immediately available in USP and USP 99.5% grades from points around the country. Dow's synthetic glycerine is unsurpassed for clarity and purity.

special advantages . . . for example, Methocel forms smooth, clear solutions with water. Many other gums are partially crosslinked, thus form only partly dispersed suspensoids. The nonionic, neutral qualities of Methocel permit its use over a wide pH range. The acid reaction of other gums limits their use to a pH range on the alkaline side. Some natural gums are restricted in use with certain drugs due to the presence of reactive carboxyl groups. Not so, with Methocel. Synthetic Methocel resists attack by microorganisms that may find other gums an easy target.

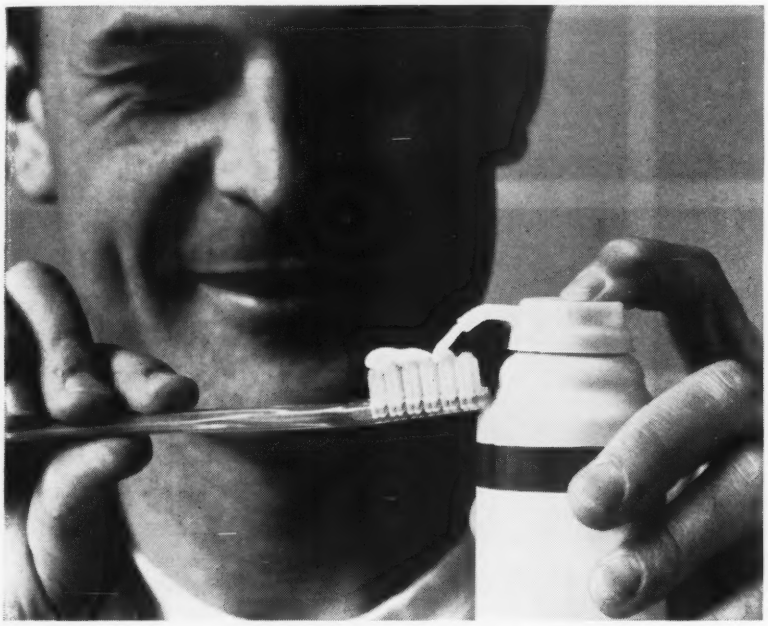
When production gums up, the new Methocel Handbook or Dow Technical Service are available to help solve your problem.

PLAQUEMINE:

New pin on the Propylene Glycol map

Popular use of Propylene Glycol USP is on the increase. To meet the forecast need, Dow is now building at Plaquemine, La., a new plant that will assure steady, abundant supply of this low cost chemical of importance to the pharmaceutical industry.

One of the most useful entries in the Pharmacopoeia, Propylene Glycol USP does many things well. It acts as carrier, solvent, emollient, humectant, preservative . . . in vitamin formulations, antiseptics, salves, elixirs, ointments. In cosmetics, manufacturers of cream lotions capitalize on its ability to soothe and soften skin without leaving stickiness.



In many pharmaceutical specialties the big push is to "push-button" . . . the Methocel gums make the changeover easy!

With the help of Chlorothene, aerosol depressant problems go "Phfftt"!

CHLOROTHENE:

Does double duty in aerosols

Word is that the new solvent Chlorothene® (Dow 1,1,1-trichloroethane, inhibited) is being specified more and more by aerosol packagers, because of its ability to do *two* essential jobs well.

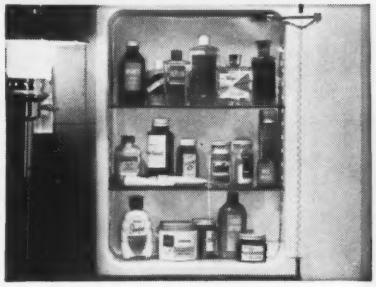
First, Chlorothene is a quality vapor pressure depressant . . . actually does the job for less money. Chlorothene saves again in providing higher solvency for active ingredients, often eliminating the need for additional solvents. Chlorothene may now be used in hair sprays as a portion of the propellant system. Aerosol packaging costs got you depressed? "Cheer up with Chlorothene!"

* * * *

If you would like more information about any of the chemicals mentioned in this advertisement (or any other Dow chemicals) please write us for complete information: THE DOW CHEMICAL COMPANY, Midland, Michigan, Chemicals Sales Department 736D-1.

AROMATICS

At Dow there is an unceasing search for new chemicals for flavor and odor use. New aromatics continually join coumarin, Rosaryl® Dorisyl®, C•64®.



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Stops bacteria and fungi. 14 different preservatives protect hundreds of different products from deterioration. Put them on guard for you.

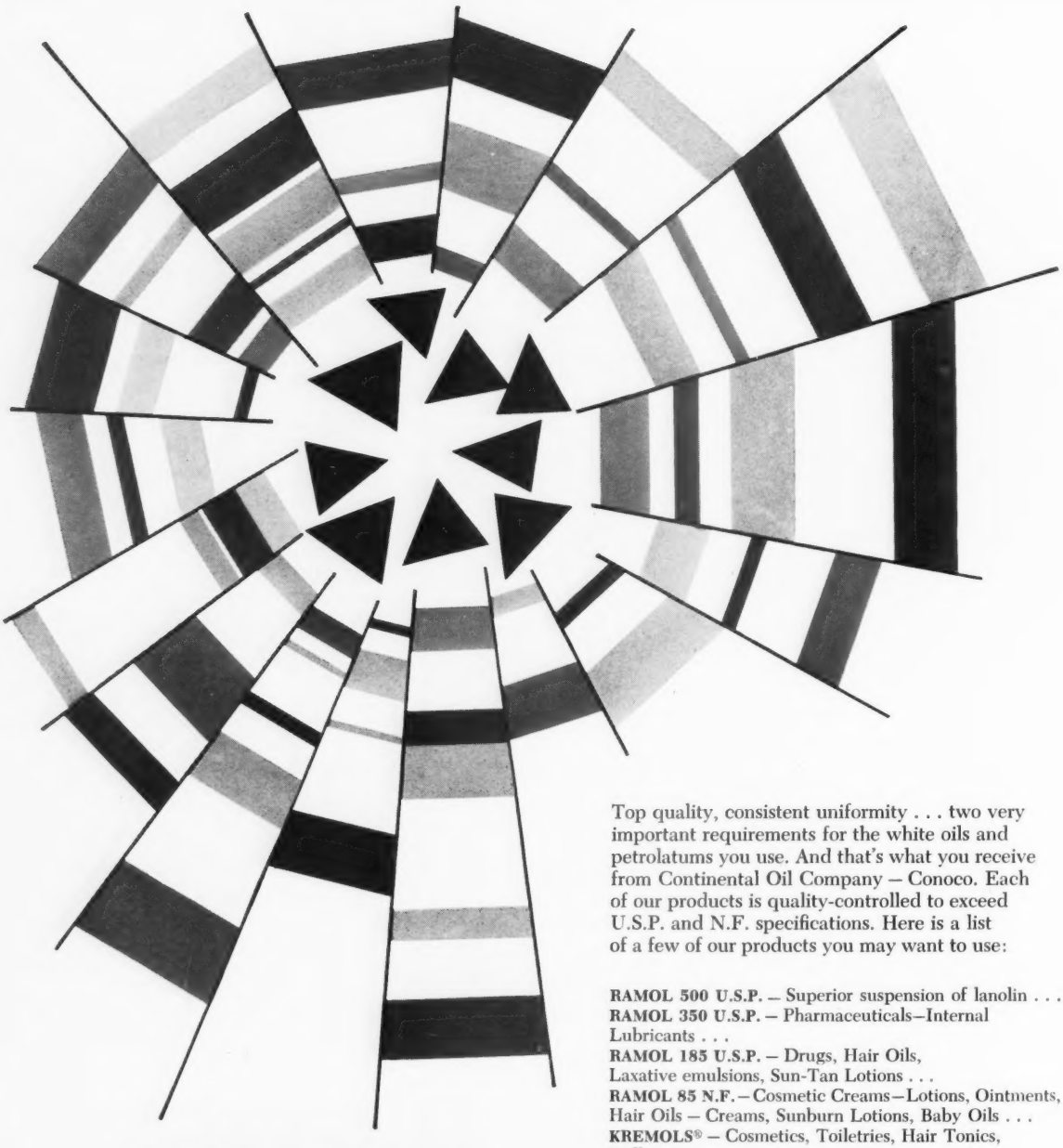
DOW CHEMICALS

basic to the drug and cosmetic industry

Aromatics • Emulsifiers • Alkalies
Thickeners • Stabilizers
Glycerine • Solvents • Humectants
Glycol Ethers • Polyols
Preservatives • Ion Exchange Resins
Chelating Agents • Methylcellulose
Amino Acids • Fine Chemicals
Pharmaceutical and Medicinal Intermediates

YOU CAN DEPEND ON

DOW



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Top quality, consistent uniformity . . . two very important requirements for the white oils and petrolatums you use. And that's what you receive from Continental Oil Company – Conoco. Each of our products is quality-controlled to exceed U.S.P. and N.F. specifications. Here is a list of a few of our products you may want to use:

RAMOL 500 U.S.P. – Superior suspension of lanolin . . .
RAMOL 350 U.S.P. – Pharmaceuticals–Internal Lubricants . . .
RAMOL 185 U.S.P. – Drugs, Hair Oils, Laxative emulsions, Sun-Tan Lotions . . .
RAMOL 85 N.F. – Cosmetic Creams–Lotions, Ointments, Hair Oils – Creams, Sunburn Lotions, Baby Oils . . .
KREMOLS® – Cosmetics, Toiletries, Hair Tonics, Brilliantine . . .
BRILLOL® – Exceptionally low-viscosity for toiletry preparation.

Why not investigate the possibilities offered in Conoco's complete line of white oils and petrolatums. We'll be glad to send you samples.

with the high quality, consistent uniformity of

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CONTINENTAL OIL COMPANY
SHERWOOD REFINING DIVISION
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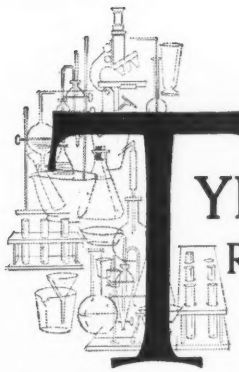
European Sales Office: P. O. Box 1207, Rotterdam, The Netherlands



TYROTHRICIN RE-DISCOVERED

Tyrothricin — the world's first therapeutic antibiotic — is attracting new interest today, as bacterial resistance, adverse reactions, and other problems complicate the use of the newer systemic antibiotics. At a time when a more discriminating application of antibiotics is being urged, it is worth remembering that tyrothricin was the first specialized antibiotic, being used only for topical therapy.

Tyrothricin today offers increasingly important advantages. It is both bacteriostatic and bactericidal, rapidly effective against most of the bacteria encountered in skin and other external infections. Tyrothricin involves no significant problems of bacterial resistance, sensitization, or allergy. Essentially nontoxic on topical application, it is not absorbed systemically. Tyrothricin is never used for parenteral or other systemic administration, thus permitting other antibiotics to be reserved for systemic use without loss of effectiveness or likelihood of prior sensitization.

HIGHLY ADAPTABLE PHARMACEUTICALLY
NO LEGAL RED TAPE WITH TYROTHRICIN

Tyrothricin shows compatibility with many topical medicaments, and has unusual stability. Tyrothricin involves *no legal red tape.* No New Drug Application is needed, no batch certification or expiration dating . . . eligible, too, for over-the-counter preparations.

WALLERSTEIN — TYROTHRICIN SPECIALIST

Wallerstein — world's first producer of tyrothricin — is ready to meet your bulk requirements of tyrothricin and of its chief component, gramicidin. Drug and cosmetic manufacturers can find profitable uses for Tyrothricin Ⓦ (or Gramicidin Ⓦ) in the formulation of ointments, lozenges, mouth washes, dentifrices, deodorants, cosmetics, etc. Complete technical assistance is available from the specialists who helped originate the world's first antibiotic and its many applications. *Write or phone for further information and current bulk prices.*

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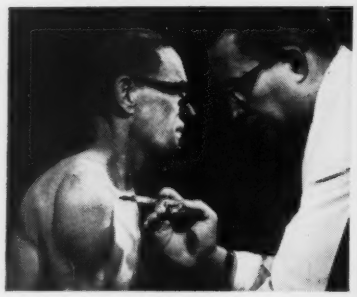
Clinicians Acclaim Superiority of Hydrocortisone

Recently the spotlight of comparative evaluation has been repeatedly focused on hydrocortisone in the treatment of many disorders. In impressive new publications, this steroid—the chief hormone of the human adrenal cortex—is accorded major commendation.[1-3] Thus, authoritative clinical judgment acclaims anew the advantages of hydrocortisone in the treatment of many diverse disorders in many patients. An editorial points to the superiority of hydrocortisone ointment in pruritus ani.[1] A monumental new *Dermatology* remarks that this corticoid is the best single medication for circumscribed neurodermatitis in any area.[2] The authors recommend topical hydrocortisone highly in many other dermatoses, and affirm the extreme rarity of significant local or general reactions to this type of therapy.[2] Systemic hydrocortisone is now recommended as life-saving in many geriatric patients unable to tolerate anesthesia or surgery without such hormonal treatment.[3]



Intra-articular hydrocortisone greatly relieves joint pain and stiffness in osteoarthritis.

Thus, as the clinical use of hydrocortisone has been extended on a vast scale through the years, notable advantages of this steroid have become established. Perhaps most striking is this fact about topical therapy: ***Many patients who fail to respond satisfactorily to available analogues of the hormone can be markedly benefited by hydrocortisone itself.***[1,4-6]

As the principal hormone of the human adrenal cortex, hydrocortisone may well be metabolized "more physiologically"—that is, in more nearly normal (or natural) chains of reactions than are certain of its congeners. Such considerations are highly significant in both topical and systemic use of the hormone since freedom from side effects is as important as pharmacologic potency.

So, in the intense competition of modern pharmacotherapeutics, hydrocortisone wins new high honors and, on the sound bases of clinically proved rationales, gains greater and greater markets.

References

1. Editorial: *J.A.M.A.* 162:732, Oct. 20, 1956.
2. Pillsbury, D. M., Shelley, W. B., and Kligman, A. M.: *Dermatology*, Philadelphia, Saunders, 1956, pp. 304, 414.
3. Howland, W. S.: *Geriatrics* 12:147-150, March 1957.
4. Smith, C. C.: *A.M.A. Arch. Dermat.* 74:414-415, Oct. 1956.
5. Frank, L., and Stritzler, C.: *A.M.A. Arch. Dermat.* 72:547-549, Dec. 1955.
6. Robinson, H. M. Jr. *et al. U. S. Armed Forces M. J.* 7:963-978, July 1956.

(Many additional references on request)

Hydroc
Wins New

And You Win New Markets with

In the tests of time and searching investigation, the chief hormone of the human adrenal cortex has again and again been reported to be unexcelled in many clinical situations—and often has been designated the therapeutic agent of choice. Markets for this hormone, alone or in combinations for topical or systemic use, continue to expand rapidly.

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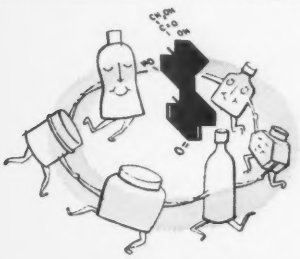
Expanding Markets Seen for Hydrocortisone

★ Today, the topical medication market already annually exceeds $100,000,000 . . .

★ Our population is already approximately 170 million—and growing—markets too are growing . . .

★ Longevity is at its greatest—and still increasing . . .

★ Skin disorders, eye conditions, osteoarthritis, and many other disorders in which hydrocortisone is often indicated are on the increase because almost 60 million U.S. men and women have become members of the "40-PLUS" group.



New Hydrocortisone Combinations Offer Enormous Potentials

The number of possible, therapeutically valuable hydrocortisone combinations with different drugs is large. Dosage forms are varied and this diversity of possible formulations is all the greater because of (1) the wide choice of available vehicles, with new types on the way, and (2) the variation in the concentration of each ingredient.

Tranquilizer plus hydrocortisone affords an antiarthritic medication which also relieves the commonly aggravating factors of anxiety and tension.

Certain vitamins plus hydrocortisone would seem to offer great promise in view of the increased vitamin needs in stress.

Sex hormones plus hydrocortisone are now advocated by clinicians who emphasize the anabolic effects of estrogen and androgen, especially in geriatrics.

Pyrilamine plus hydrocortisone for either topical or systemic use provides the clinically proved anti-histaminic effects of Pyrilamine in addition to the anti-inflammatory action of hydrocortisone.

Neomycin plus hydrocortisone for topical use is strongly endorsed when bacterial infection is present in inflammatory conditions.

Hematinics plus hydrocortisone may be useful in acquired hemolytic anemias if a complicating nutritional deficiency is present.

Analgesic (non-narcotic) plus hydrocortisone represents a combination of established value.

Local anesthetic plus hydrocortisone is a promising combination for local injection in the treatment of soft tissue lesions, as in fibrositis, tendinitis.

Vasoconstrictor plus hydrocortisone with or without an antibiotic has found extensive use as a nasal spray.

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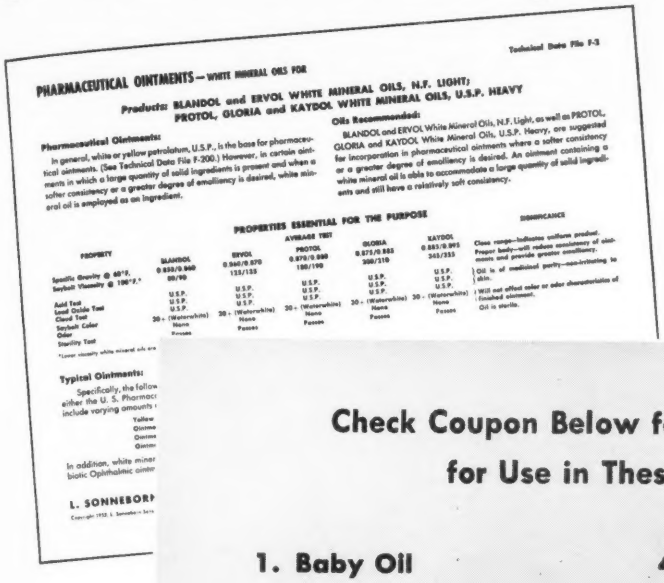

Technical Data File F-3

PHARMACEUTICAL OINTMENTS — WHITE MINERAL OILS FOR

Products: BLANDOL and ERVOL WHITE MINERAL OILS, N.F. LIGHT; PROTOL, GLORIA and KAYDOL WHITE MINERAL OILS, U.S.P. HEAVY

Pharmaceutical Ointments:

In general, white or yellow petrolatum, U.S.P., is the base for pharmaceutical ointments. (See Technical Data File F-200.) However, in certain ointments in which a large quantity of solid ingredients is present and when a softer consistency or a greater degree of emolliency is desired, white mineral oil is employed as an ingredient.

Oils Recommended:

BLANDOL and ERVOL White Mineral Oils, N.F. Light, as well as PROTOL, GLORIA and KAYDOL White Mineral Oils, U.S.P. Heavy, are suggested for incorporation in pharmaceutical ointments where a softer consistency or a greater degree of emolliency is desired. An ointment containing a white mineral oil is able to accommodate a large quantity of solid ingredients and still have a relatively soft consistency.

PROPERTIES ESSENTIAL FOR THE PURPOSE

PROPERTY	BLANDOL	ERVOL	PROTOL	GLORIA	KAYDOL	DOMINCANCE
		AVERAGE TEST				
Specific Gravity @ 40°F.	0.850/0.860	0.860/0.870	0.870/0.880	0.875/0.885	0.885/0.895	Close range—indicates uniform product.
Saybolt Viscosity @ 100°F.*	80/90	135/155	180/190	300/310	345/355	Proper body—will reduce consistency of ointments and provide greater emolliency.
Acid Test	U.S.P.	U.S.P.	U.S.P.	U.S.P.	U.S.P.	Oil is of medicinal purity—non-irritating to skin.
Lead Oxide Test	U.S.P.	U.S.P.	U.S.P.	U.S.P.	U.S.P.	
Cloud Test	U.S.P.	U.S.P.	U.S.P.	U.S.P.	U.S.P.	Will not affect color or odor characteristics of finished ointment.
Saybolt Color	30+ (Waterwhite)	30+ (Waterwhite)	30+ (Waterwhite)	30+ (Waterwhite)	30+ (Waterwhite)	
Odor	None	None	None	None	None	
Sterility Test	Passes	Passes	Passes	Passes	Passes	Oil is sterile.

*Lower viscosity white mineral oils are

Typical Ointments:

Specifically, the follow
either the U. S. Pharmac
include varying amounts

Yellow
Ointme
Ointme
Ointme

In addition, white miner
biotic Ophthalmic ointm

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Gives complete information on properties and characteristics of the White Mineral Oil best suited for utilization in each application or process listed below. Also suggested formulations.

Check Coupon Below for Data on WHITE OILS for Use in These Applications

1. **Baby Oil**
2. **Cosmetic Creams**
3. **Hair Preparations***
4. **Intestinal Lubricants**
5. **Pharmaceutical Ointments**
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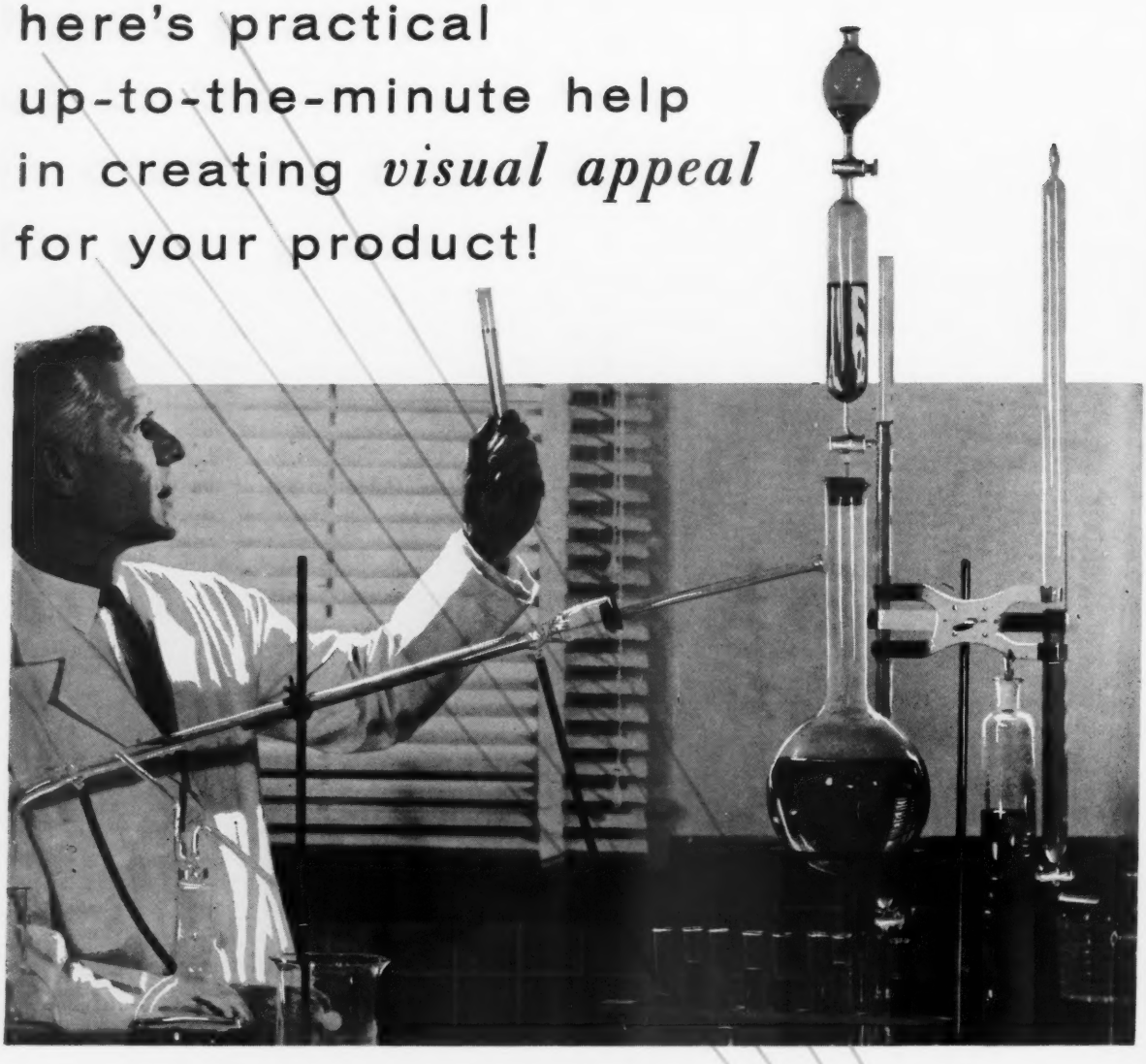

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U.S.I. CHEMICAL NEWS

Nov. ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1958

Methods for Making Borane Fuels Now Being Piloted

Operation of a high-energy-fuel pilot plant for the Air Force began recently at AFN, Inc., Henderson, Nevada. The company is owned jointly by American Potash, Food Machinery, and the U.S.I. Division of National Distillers (see U.S.I. Chemical News—February 1958).

This new plant is a process development unit designed, engineered and constructed by AFN under Air Force sponsorship to develop a large-scale production method for alkyl borane high energy fuels, materials of great importance to the nation's missile program.

ATTENTION: Users of Specially Denatured Alcohol

Citric acid may now be added to toilet preparations containing tartar emetic to prevent clouding, according to an industry circular issued by the Alcohol and Tobacco Tax Division.

Since issuing the regulation that tartar emetic or sucrose octa-acetate must be added to bay rum, alcoholado, or alcoholado-type toilet waters made with specially denatured alcohol, the Division has discovered that tartar emetic produces cloudiness in formulations.

The Division recommends the use of one-quarter grain of citric acid per fluid ounce of finished product to eliminate cloudiness. The circular says: "Permittees now holding approved formulas for the manufacture of alcoholado or bay rum containing tartar emetic and who elect to add citric acid . . . need not submit new formulas on Form 1479-A. However, formulas submitted in future for these products in which citric acid is to be used must show such use."

Cetyl Alcohol "Blanket" Lowers Water Evaporation

Researchers have discovered that a one-molecule-thick layer of cetyl alcohol, spread on the surface of water in a reservoir, can reduce evaporation by as much as 65%. A pound of this harmless chemical will cover 10 acres of surface and last about 3 days against the action of wind and dirt. It is calculated that a pound per acre per month provides adequate protection, and that millions of dollars could be saved this way yearly in areas where water is usually in short supply.

Cetyl alcohol acts by spreading over the water surface to seal out air. It must extend to the reservoir banks to be effective. Its self-healing property insures that there will be no uncovered places on the surface for long, should wind or dirt break the coating.

Some practical problems must be solved before usage can become widespread. These include methods of applying and replacing the chemical. One solution being examined involves placing pelletized cetyl alcohol in screens on floats or buoys on the water.

Tests Confirm That Methionine Is Absorbed Through the Skin

Known Healing Properties of Methionine, Plus Proof Of Skin Absorption, Suggest Wide Application in Topically Applied Cosmetics, Toiletries, Medications

It has been established by thorough study that methionine is absorbed by the body when applied to the skin. Radioactive tracer studies made with guinea pigs reveal that administration of methionine by skin has nearly half the efficiency of oral feeding.

Methionine is an essential sulfur amino acid, a precursor of cystine in the skin, hair, nails and other tissues. It has been shown previously that methionine administered orally:

- decreases healing time of surface wounds
- cures some forms of diaper rash
- aids in disappearance of warts
- protects against radiation damage
- helps reduce tumor growth
- overcomes urinary infections

Experience with topical application has revealed that methionine:

- promotes rapid healing of burns and other wounds
- heals varicose leg ulcers
- promotes good skin tone
- has helped in treatment of falling hair

Now that definite experimental data has been compiled on the rate and extent of methionine absorption through the skin, it is felt that its healing properties can be utilized

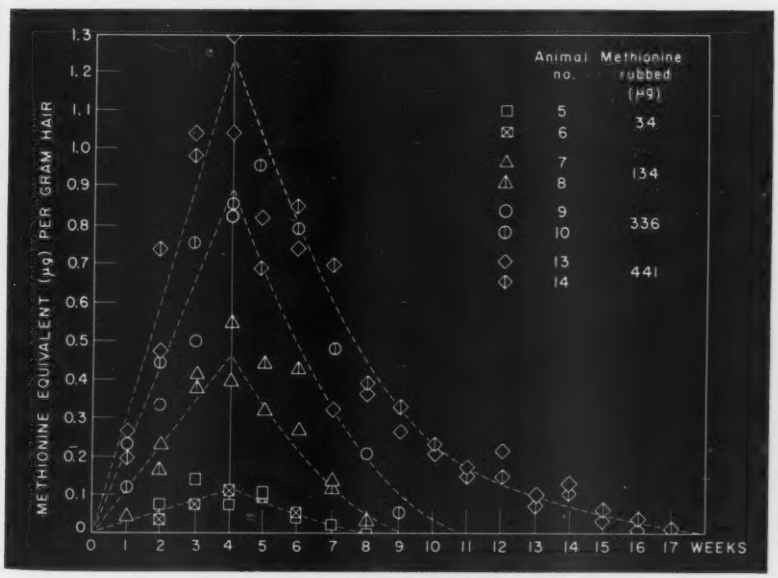
MORE

Esters of ISOSEBACIC® Acid Compare Well with Other Vinyl Plasticizers

Octyl esters of the new U.S.I. ISOSEBACIC acid have been evaluated against accepted vinyl plasticizers in a complete series of tests at the U.S.I. laboratories. The performance results have been coupled with current price information to yield comparisons which should be of interest to makers of vinyl plasticizers.

Here are the conclusions. Octyl isosebacates are less expensive than sebacates and are closely competitive in overall performance. They have an edge over azelates on cost and are about equal in performance. While comparing closely on cost with adipates, they are better on overall performance.

ISOSEBACIC acid is a new synthetic intermediate developed by U.S.I. — a mixture of 2-ethyl suberic, 2, 5-diethyl adipic and sebacic acids. It will soon be available commercially from a new U.S.I. plant at Tuscola, Ill.



Uptake of methionine (S^{35}) in hair of rubbed guinea pigs. (Edwards, L. J.: *Nature*, 173, 1042)

Nov. ★ **U.S.I. CHEMICAL NEWS** ★ 1958

CONTINUED *Methionine*

extensively by formulators of cosmetics, toiletries and topically applied medications. Creams and lotions to maintain skin tone, treat burns and sunburn, and hasten the healing of minor cuts, scratches and abrasions are among the possibilities. Incorporation into baby talcs, after-shave lotions and men's hair preparations is also indicated. The possibilities are many.

Test Procedures

Here's how the tests were made. Methionine labeled with a radioactive sulfur (S^{35}) tracer was applied in aqueous solution to a shaved area on the backs of the test guinea pigs by gentle rubbing. The same solution was also injected intramuscularly into a second group of guinea pigs, and fed orally to a third group. Hair from the treated animals was clipped at weekly intervals, washed, and its radioactivity determined. The per cent of absorption by these three methods of application were, respectively, 1%, 3-5%, and 2%, based upon the test results.

The animals subjected to topical application were treated four days a week for four weeks. Their hair showed a steady build-up of radioactivity during this time. When application was stopped, radioactivity declined steadily. The chart on the preceding page shows the curve.

New Surface Treatment for Polyethylene Makes It Receptive to Printing Ink

A new chemical treatment for giving the surface of polyethylene an affinity for printing inks is outlined in British Patent 772,803. Two types of chemical solutions are mentioned:

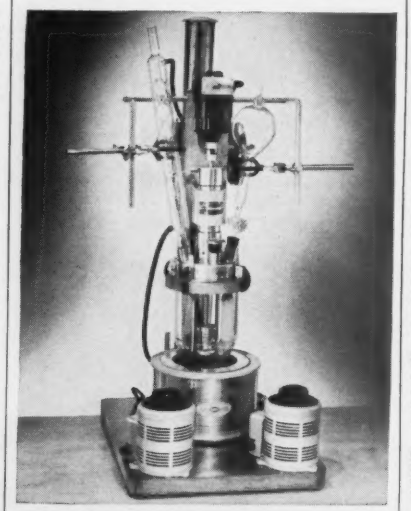
(1) A 4% aqueous solution of a permanganate containing 10-30% by weight of sulfuric acid. A brown permanganate stain results which can be removed with potassium bisulfite without affecting film's receptiveness to ink.

(2) A 30% aqueous solution of a chromate or dichromate containing not more than 30% by weight of sulfuric acid. Both chemical treatments are followed by washing and drying.

New High-Speed Stirrer For Dispersing Sodium

A new unit, designed to apply high-speed stirring to many types of small-scale chemical reactions, has been tested and found satisfactory for dispersing sodium. As part of a research program on preparation and uses of sodium in dispersed form, the U.S.I. laboratories have evaluated the new Chemtor Dispersion Reactor and have found that it compares favorably with other small-scale units suggested in the U.S.I. literature (see the 42-page U.S.I. brochure "Sodium Dispersions" for complete discussions of Cowles Dissolver, Premier Mill Dispersator, Waring Blendor).

The Chemtor Dispersion Reactor, like the others, can be used to increase the surface area of sodium — for faster reactions and higher yields — in Claisen condensations, Wurtz-type reactions, purifications, metallations, preparation of sodium alcholates, preparation of alkyl and aryl sodium, polymerizations and replacement of acidic hydrogen.



Chemtor high-speed dispersion reactor system.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

Powdered replacement for liquid acids just introduced is blend of acid salts, activators, surfactants. Acid solutions prepared by dissolving in water. Suggested for activating metals before plating, and as pickling agent. **No. 1410**

Barium chloranilate reagent powder for sulfate determinations is now being marketed. Reduces working time to one half hour maximum, it is claimed. Suitable for analyses of water, petroleum products, many other materials. **No. 1411**

New gamma-sensitive scintillation detector is specially designed for medical diagnostic use of radioisotopes. Is said to be ideally suited for thyroid or kidney function studies, cardiac output determinations, 3-D body scanning. **No. 1412**

Feed industry outlook for next 50 years — covers expected advances in farm economics, biochemical developments, feed automation, liquid supplements, etc. in reprint form. **No. 1413**

New rauwolfia alkaloid raubasine is now available in commercial quantity. Product is also known as ajmalicine, delta-yohimbine and tetrahydroserpentine. **No. 1414**

High purity 2-butene and 1-butene concentrates are now commercially available. The 2-butene contains no isobutylen, , 0.5% max. 1-butylene, 1% max. butadiene, 96% min. 2-butene, balance n-butane. The 1-butene contains 5% max. isobutylene, 60% min. 1-butene, balance butanes. **No. 1415**

Disposable-paper temperature indicators for 100, 105, 110°F can now be obtained. Work by irreversible color change. Developed for measuring temperatures attained by heat-sensitive biologicals, etc. in storage and transit. **No. 1416**

Cholesterol's chemistry, biochemistry and pathology are detailed in a new, 542-page book which can now be purchased. Prepared by an international group of authors, book gives complete picture of present knowledge on compound. **No. 1417**

Small-capacity pump or meter designed to fit conventional laboratory stirring motor drives is now on market. Mounts on same ring stand as such motors. Said to handle small flows of Chemical liquids, slurries, pastes. **No. 1418**

Proceedings of Sixth International Conference on Spectroscopy (May 1956) have recently been published as a supplement to Spectrochimica Acta, 1957 and offered for sale. Includes papers on UV absorptiometry, IR spectroscopy, emission, spectrometry. **No. 1419**

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CELERY	GERANIOL	ORRIS LIQUID, Conc.	SANDALWOOD
	NUTMEG		STYRAX

also CITRAL • EUGENOL • LINALOOL • RHODINOL

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BALSAM PERU	CELERY	ORRIS
BALSAM TOLU	LABDANUM	STYRAX
BENZOIN	OLIBANUM	TONKA
	OPOPONAX	

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70 *Years of continuous quality service — suppliers and manufacturers of*

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GEORGE LUEDERS & CO.
NEW YORK
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REGISTERED TRADE MARK

GEORGE LUEDERS & CO.

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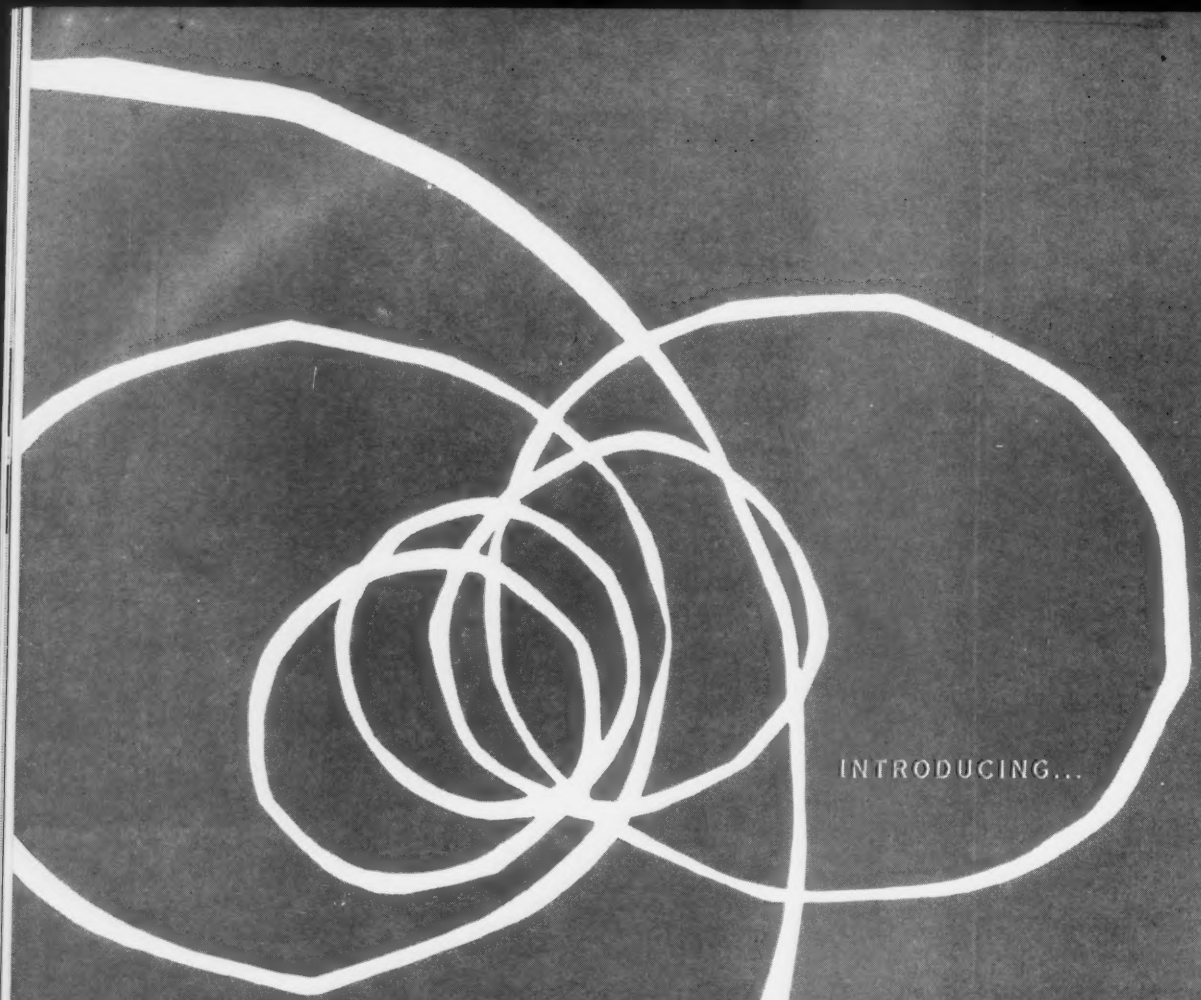
Established 1885



INTRODUCING...

CERAPHYLS*

A NEW DIMENSION...

IN COSMETIC AND PHARMACEUTICAL FORMULATIONS FOR TEXTURE LUBRICATION, SOLUBILIZATION AND PROTECTION OF SKIN AND HAIR.

SINCE 1904 Van Dyk BELLEVILLE, N.J.

*Patents Pending

VAN DYK

AND COMPANY, INC.
BELLEVILLE, NEW JERSEY

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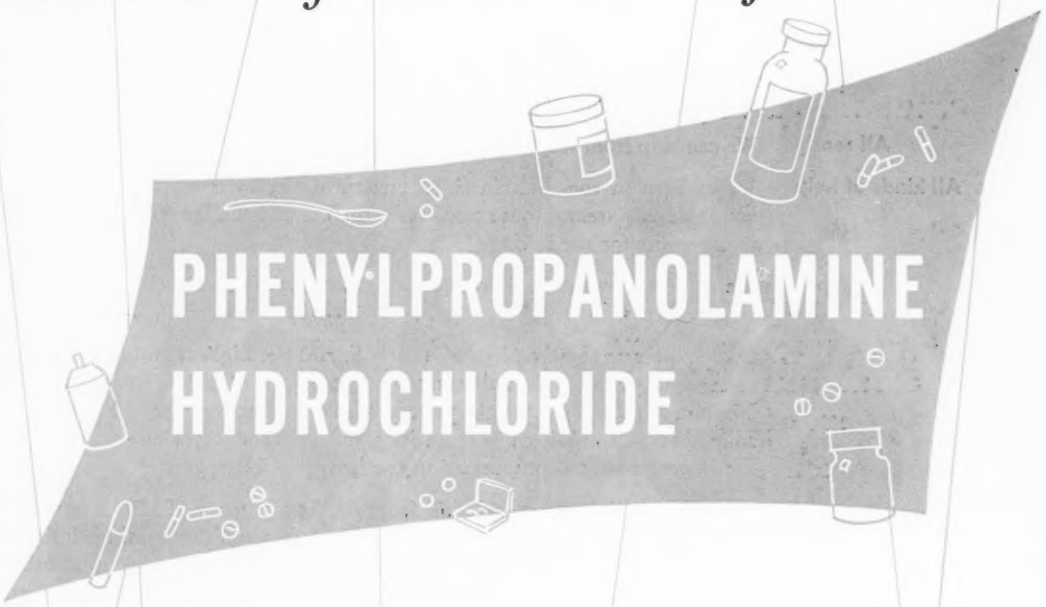
Available now from a new major source!



Nasal Decongestant for Oral Administration

Because of fast-growing interest in this drug, NYQ has installed extensive new facilities to assure continuing bulk production of a high quality material. Stocks are ready now for immediate shipment from five coast-to-coast warehouse points.

As a nasal decongestant, phenylpropanolamine hydrochloride gives convenient relief to cold and allergy sufferers since it is highly effective when taken orally. It can be incorporated . . . with or without antihistamines . . . in cough syrups, tablets and other cold remedies as well as in sprays and inhalators.

We will gladly provide trial materials for product development. If you are already a user, let us submit samples of our new production for your inspection.

SEND TODAY **for your copy of our new illustrated brochure "CONFIDENTIAL MANUFACTURING".**

With custom chemical manufacturing becoming increasingly important throughout the industry, we feel you will be interested in NYQ's unique facilities, processes and experienced personnel detailed in this booklet.

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DPi vitamin E is all*

All *d* All of DPi vitamin E products contain only the *d*-stereoisomer. That's the most active alpha-tocopherol stereoisomer. It's the one found in nature.

All ready We can ship from stock. No inventory problems for you. No holding up production.

All kinds of help We've been in the vitamin E manufacturing business from the beginning. We've accumulated a tremendous amount of technical information, theoretical and practical, that's yours for the asking.

All types We make four vitamin E products for pharmaceutical manufacturers—one for every dosage form:

Crystallized d-Alpha-Tocopheryl Acetate N.F. Has the highest biological potency of any commercial vitamin E bulk material we know of—1360 International Units of Vitamin E per gram. A light-yellow, viscous oil at room temperature, it is readily adaptable to solubilized preparations, tablets, and capsules—wherever you want the largest dosage of vitamin E in the least possible space.

Crystalline d-Alpha-Tocopheryl Acid Succinate. At a potency of 1210 International Units of Vitamin E per gram, it lets you get the maximum dry vitamin E into a minimum space. Suitable for incorporating vitamin E in dry-filled capsules, or in other applications where liquid forms of vitamin E are difficult to use. Stable to atmospheric oxidation. Melts at about 76 C.

Distilled Mixed Tocopherols Concentrate N.F. An effective antioxidant as well as an excellent source of vitamin E. Made from domestic vegetable oils with molecular distillation as a key processing step. The *d*-alpha tocopherol content is standardized at 50% of the total tocopherol content. Type 4-34 provides 340 mg of total tocopherol, or 253 International Units of Vitamin E per gram; Type 4-50, 500 mg of total tocopherol, or 372 International Units of Vitamin E per gram. Both types are clear red oils with a mild taste and odor.

Distilled d-Alpha-Tocopheryl Acetate Concentrate N.F. Available with either 340 or 476 International Units of Vitamin E per gram. It is a clear yellow oil with a mild taste and odor, is stable to air and to most pharmaceutical materials.

All requests for information or a quotation should be addressed to ***Distillation Products Industries,*** Rochester 3, N. Y. Sales offices: New York and Chicago • W. M. Gillies, Inc., West Coast • Charles Albert Smith Limited, Montreal and Toronto.

DPi

leaders in research and production of vitamin E

Also . . . vitamin A . . . distilled monoglycerides . . .
some 3700 Eastman Organic Chemicals for science and industry

Distillation Products Industries *is a division of* Eastman Kodak Company

*Private footnote to a reader from a good, solid Pennsylvania Dutch family:
Grandpa would interpret our headline to mean that DPi's vitamin E is all gone. This is not the case at all.

de Laire

Renowned the world over for the finest perfume specialties, aromatic chemicals and fragrance creations for perfumes, soaps and cosmetics.

Over 80 years of experience and outstanding achievements in research and creation at your disposal.

DE LAIRE, INC. 242 WEST 30th STREET, NEW YORK 1, N. Y. • Telephone: CHickering 4-7455

WANT LAB HELP ON NEW PRODUCTS?

Atlas Cosmetic specialists, who have made major contributions to emulsifier and polyol technology, work on your problems.

New $3 million Atlas Technical Center, opened recently, doubles the facilities we can apply to your new product work.

Skilled surfactant technologists give you practical help in emulsifying, solubilizing, detergency, wetting, control of moisture, cosmetic effects.

Call on the new Atlas Cosmetic Laboratory

. . . now expanded to give you more assistance on emulsifier and polyol problems than ever before

You can save a sizeable part of the time and cost of new formula development by letting our Cosmetic Laboratory lend you a hand in the highly specialized area of surfactant and polyol technology. For over fourteen years, our staff of cosmetic specialists has been working with the cosmetic industry on formulating problems. And now, with the opening of our new Technical Center, we're better equipped than ever to help you to cash in on our experience in using polyols and surfactants in cosmetic products.

Our lab service . . . part of our 4-Point Program for cosmetic formulators . . . helps you several ways. You get the benefit of the new materials and new formulation techniques which we work out for the industry in general. And when you have specific problems to tackle, we offer an extensive confidential service in polyol and surfactant technology, through which we can work closely with your own laboratory, your consultant or private label compounder, in areas such as these:

- **compatibility with other ingredients in your formula**
- **stability and viscosity of emulsions**
- **emulsification of special ingredients**
- **protection of texture**
- **moisture content of formulations**
- **use of preservatives**
- **development of guide formulas**

We'll be glad to discuss how this service can go to work for you immediately. Just call your Atlas representative, or write to us.

Cut development time and cost with the Atlas 4-Point Program

1 Convenient data—in the Atlas Cosmetic Information File—on Atlas polyols, surfactants, and how to use them.

2 Easy emulsifier selection—from the Atlas "32" line—all you need for emulsification in any cosmetic formula.

3 Latest news—in Atlas Cosmetic Bulletins—on ingredients, trends, formulation tips.

4 Technical help—from the Atlas Cosmetic Laboratory.

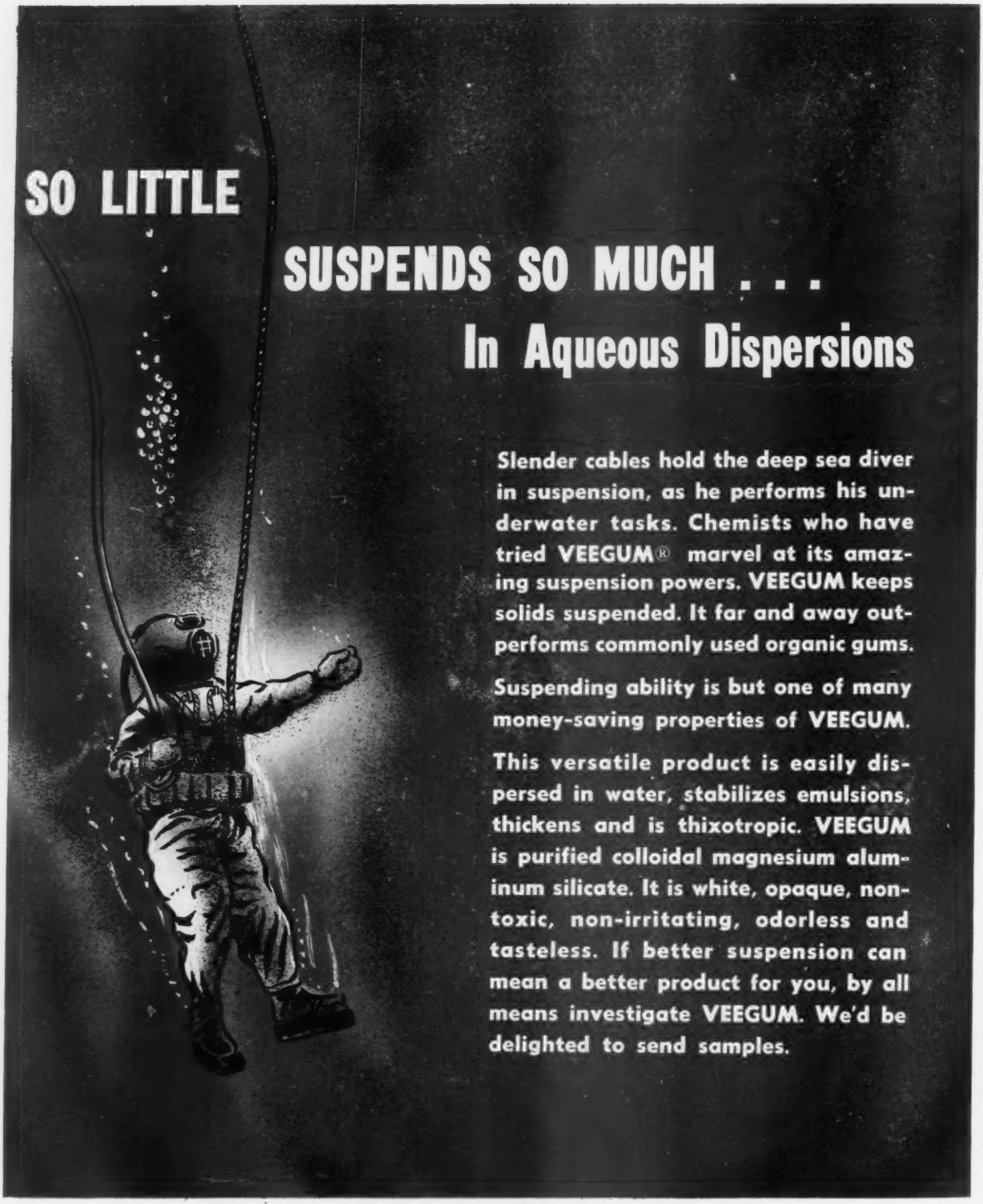
Heavy duty mixing equipment is typical of the facilities we maintain for cosmetic formula investigations.

CHEMICALS DIVISION

ATLAS POWDER COMPANY

WILMINGTON 99, DELAWARE

In Canada: Atlas Powder Company, Canada, Ltd. Brantford, Ontario, Canada


SO LITTLE
SUSPENDS SO MUCH . . .
In Aqueous Dispersions
Slender cables hold the deep sea diver in suspension, as he performs his underwater tasks. Chemists who have tried VEEGUM® marvel at its amazing suspension powers. VEEGUM keeps solids suspended. It far and away outperforms commonly used organic gums.
Suspending ability is but one of many money-saving properties of VEEGUM.
This versatile product is easily dispersed in water, stabilizes emulsions, thickens and is thixotropic. VEEGUM is purified colloidal magnesium aluminum silicate. It is white, opaque, nontoxic, non-irritating, odorless and tasteless. If better suspension can mean a better product for you, by all means investigate VEEGUM. We'd be delighted to send samples.

Use This Coupon To Get Fast Action

R. T. VANDERBILT CO., SPECIALTIES DEPARTMENT
230 PARK AVENUE, NEW YORK 17, N. Y.

( ) Please send VEEGUM Bulletin 53J ( ) Send sample of VEEGUM
State Application_____

Name_____

Title_____

(Please attach coupon to your Company letterhead) P–4

"Do you mean there are no refunds for any of these bottles?"

Keeping Posted

Hospital Drug Substitution

One aspect of the problems involved in combatting drug substitution is illustrated by an article which appeared in "The Philadelphia Inquirer" and the letter to the editor of that newspaper by Herman W. Leitzow, vice-president of Schering Corporation. According to the newspaper story, a complaint charging the pharmacy of Hahnemann Medical College and Hospital with substitution of drugs was filed with the State Board of Pharmacy by the Schering Corporation. The complaint was said by the newspaper to be based on the testimony of two physicians, one a member of the Hahnemann staff, the other a recent patient at the hospital. According to the newspaper, a legal officer of the Schering company, who declined to identify the physicians, said the charges were filed after hospital authorities refused to change their rules governing the substitution of drugs, and a Schering spokesman said one of the alleged substitution cases at Hahnemann was discovered by a company representative who called upon a Philadelphia physician. The Schering letter states: "Hahnemann Hospital has been placed in the position of feeling obliged to refute charges which were never made by Schering against it. While our policy has been not to comment upon, or divulge details of, pending legal matters in which Schering has an interest, to remain silent in this instance would be a disservice to the staff and administration of Hahnemann Hospital and other interested parties.

"The first point to be clarified is that Schering has not complained against either the Hahnemann Medical College and Hospital or its Pharmacy, but has complained against an *individual*, its Chief Pharmacist. On at least two occasions he substituted, or caused to be substituted, something other than the Schering product called for. In each instance the container dispensed was falsely labelled as containing the trademarked Schering product. Whether these acts complied with, or violated, Hospital regulations is not for us to decide.

"Your article also attributes various statements to an unnamed Schering 'spokesman' and to a Schering 'legal officer.' The only information your reporter received from authorized personnel of this Company was that a complaint had been filed and that it was based on at least two instances of substitution. No Schering spokesman told him that our complaint was 'based on the testimony of two physicians,' because such, in fact, is not the case."

The position of the hospital was defined by Charles S. Paxson, Jr., Hahnemann administrator who said the hospital's practice was supervised by a "formulary committee" and was based on the principle of substituting "generic equals," that is, products of identical chemical composition, for drug items sold under various trade names. The formulary committee is headed by Dr. Joseph DiPalma, professor of pharmacology at Hahnemann Medical College.

"About half the hospitals in Philadelphia use the same system," Paxson said. "The formulary committee compiles a list of all drugs stocked in the pharmacy and gives the hospital pharmacists authority to substitute generic substances, or combinations of generic substances, that would serve the same purpose as trade name product.

"Whenever a physician joins the hospital staff, he agrees to abide by the rules laid down by the committee. We work on a scientific basis—not an advertising basis. Drug manufacturers usually push their own products and they would like hospitals to stock as many as 15 kinds of the same item, when they all have the same properties.

"Formulary committees are required by the American Pharmaceutical Association and by the Joint Commission for Accreditation of Hospitals.

"By following our practice, we are able to make sav-

SCENTS

PFW

POLAK'S FRUTAL WORKS INC., MIDDLETOWN, N.Y.

AMERSFOORT, HOLLAND · PARIS, FRANCE · BREMEN, GERMANY · BRUSSELS, BELGIUM · SOFLOR LTD · PERIVALE, ENGLAND

ings of up to 500 per cent for the hospital and our patients. If we had to stock every trade name product it would add at least $1 a day to the Blue Cross rates and the hospital would not be meeting its responsibility to the community."

Fictitious Pricing

The Federal Trade Commission has issued to its staff a nine-point guide on where the law halts fictitious pricing, thus serving notice on all advertisers and sellers that intensified enforcement has been ordered. It is becoming clear that an all-out campaign is underway to curb phony comparative price advertising; the Commission and civic organizations, such as Better Business Bureaus and the Advertising Federation of America, will strive to acquaint the public with price tricks that have enabled regular priced merchandise to be passed off as bargains.

FTC Chairman John W. Gwynne described the nine-point guide as a long-needed spotlight on an advertising evil that has misled the public in its purchases and worked a competitive hardship on merchants who advertise honestly.

"While our staff already has been hitting hard at those who lie about their bargain prices, we believe the problem is growing worse. Its solution calls for no less than a united effort by all groups—private, civic, state, and Federal—to get price advertising claims back on a truthful level. This task may be too widespread for the Federal Trade Commission alone, but its solution is not beyond the capacity of all of us whose patience has run out, including the buying public."

On receipt of the guides, Harry A. Babcock, FTC's executive director, emphasized that the Commission's staff would heed them to the fullest of its capacity.

"We hope that the guides not only will serve to educate advertisers on what the law requires but also will encourage the widest cooperation on a voluntary basis. Nevertheless, we are prepared to augment our hopes by taking fast adversary action against those who think these guides don't mean what they say."

The guides are directed against nine major types of fictitious pricing. They follow:

(1) Savings Claims. Sellers must not represent or imply that they are offering a reduced price unless that price applies to a specific article—not just similar or comparable merchandise. Furthermore, any savings claims must be based on a reduction from the "usual and customary" retail price of the article in the trade area where the statement is made or from the advertiser's regular price.

(2) Merchandise must not be advertised as reduced in price if the former higher price is based on an artificial mark-up on previous infrequent and isolated sales. The former price quoted also must be the one that immediately preceded the new bargain price; if it is not, this fact must be clearly disclosed.

(3) Comparative prices for comparable merchandise may be used only if the claim makes clear that the advertiser is talking only about comparable merchandise and not the former or regular price of the article he is selling. Also, the comparable merchandise must be obtainable at the comparative price in the same trade area (or, if not, the ad must clearly say so).

(4) Special sale prices must not be advertised unless they represent a bona fide price reduction from the seller's customary retail price or at a saving from the regular price in that trade area.

(5) "Two-for-One Sales" claims may not be made unless the sales price for the two articles is the seller's usual retail price for the single article in the recent regular course of his business or is the usual price in the trade area.

(6) So-called "½ price" or "50 per cent off" or "1c" sales must be factually true, and, if conditioned upon the purchase of additional merchandise, this fact must be conspicuously disclosed. Moreover, the proffered price reduction must be from the advertiser's customary and recent price.

(7) Products must not be advertised as being sold to the consuming public at "factory" or "wholesale" prices unless they are actually being offered at the same price that retailers regularly pay and are less than customary retail prices for the article in the trade area where the bargain price is claimed.

(8) No article should be "pre-ticketed" with any price figure that exceeds the price at which the article is usually sold in the trade area where the product is offered for sale. Those who furnish the fictitiously high price tags are equally culpable with the merchants who use them. The same prohibition applies to material such as display placards on which is printed a fictitiously high price for the product offered for sale.

(9) Comparative prices must not be used in the sale of articles described as "imperfect," "irregular," or "seconds" unless the higher comparative price is conspicuously disclosed to be for the same article in new and perfect condition. Also, the comparative price should not be used unless it is the same at which the advertiser usually sells the product without defects or is the regular price in the trade area for the merchandise when perfect.

The nine-point guide includes some general instructions by the Commission to its staff on how to evaluate the import of advertising as well as the actual words used. The principles outlined are these:

That advertisements must be considered in their entirety and as they would be read by those to whom they appeal;

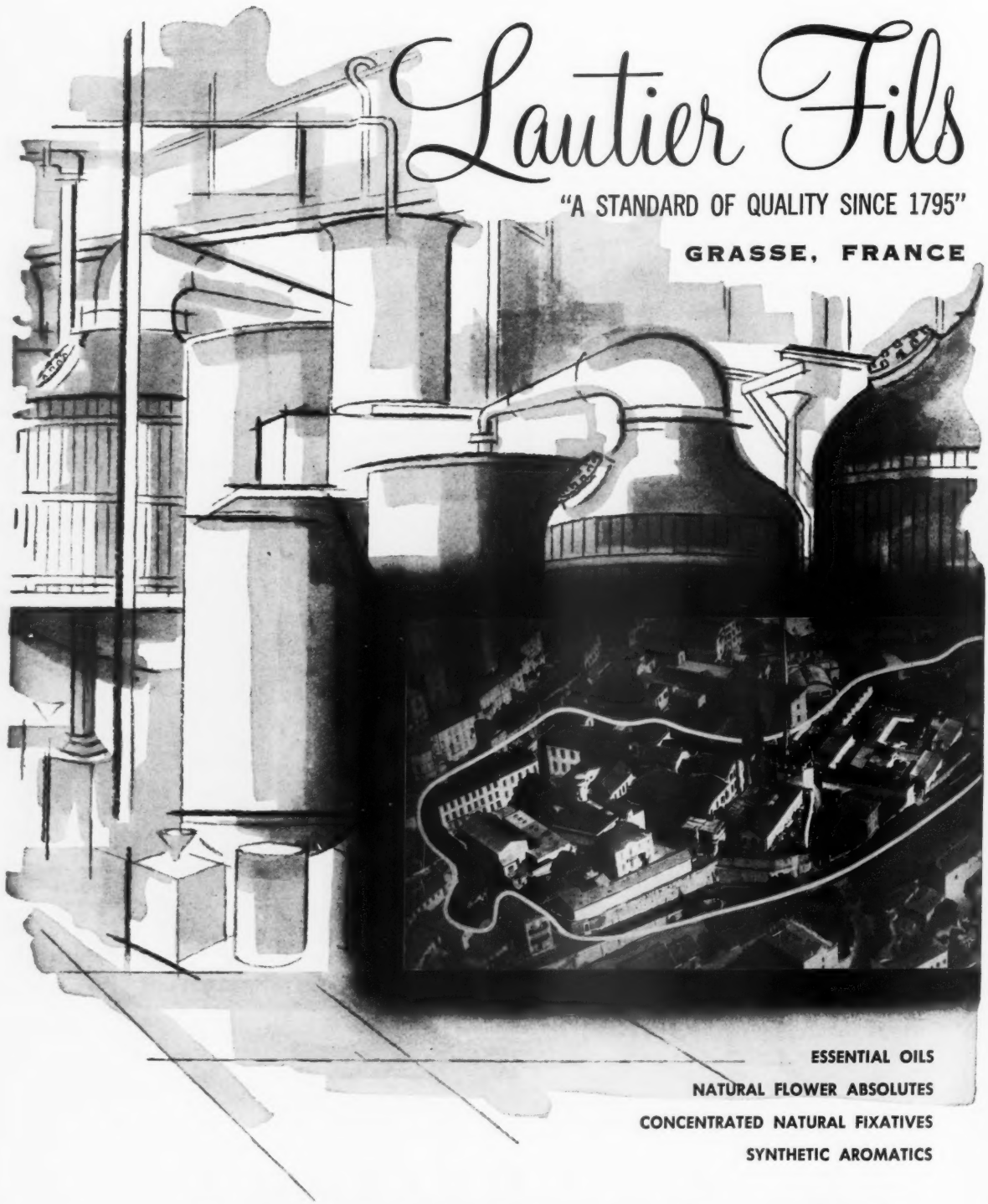
That advertisements as a whole may be completely misleading although every sentence separately might be literaly true. This may be because things are omitted that should be said, or because the ads are printed in such a way as to mislead;

That advertisements are not intended to be carefully

Lautier Fils

"A STANDARD OF QUALITY SINCE 1795"

GRASSE, FRANCE



ESSENTIAL OILS

NATURAL FLOWER ABSOLUTES

CONCENTRATED NATURAL FIXATIVES

SYNTHETIC AROMATICS

LAUTIER FILS, INC.

321 FIFTH AVENUE, NEW YORK 16, N.Y.

GRASSE • PARIS • LONDON • BEYROUTH • ST.LOUIS • CHICAGO • RIO DE JANEIRO

dissected with a dictionary at hand, but rather to produce an impression upon prospective purchasers;
That whether or not the advertisers knows the representations are false, the deception of purchasers and the diversion of trade from competitors is the same;
That a deliberate effort to deceive is not necessary to support a charge of using unfair methods of competition or unfair and deceptive acts within the meaning of the law;
That laws are made to protect the trusting as well as the suspicious; and, finally,
That pricing claims, however made, which are ambiguous should be interpreted in the light of the FTC's purpose, which is to prevent claims which have the tendency and capacity to mislead.

T. G. A. Scientific Section Meeting

The 28th meeting of the Scientific Section of the Toilet Goods Association has been announced by the Association's scientific director, H. D. Goulden. Sessions will take place on Monday, December 8, 1958 in the Sert Room of the Waldorf-Astoria Hotel, New York at 9:30 A.M. and 2:30 P.M. The luncheon will be held at 12:30 P.M. in the hotel's Empire Room and the ticket cost will be $12.50 for advance registrations, or $15.00 at the door. In accordance with T.G.A. policy, only representatives of member companies are eligible to attend. Papers given will be:
"Measurement of Color Impressions" by Gabor B. Levy, Ph.D., Photovolt Corporation; "Contribution to the Problem of Possible Skin Irritations by Lipsticks" by Dr. Otto Jacobi, Kolmar Research Center; "Antiperspirant Testing: A Comparison of Two Methods" by E. W. Daley, The Proctor & Gamble Company; "Effects of Chronic Inhalation of Hair Sprays in Experimental Animals" by Dr. Joseph Calandra, Bio-Test Laboratories; "Alkyl Sulfates: Their Stability to Hydrolysis,' by R. R. Read and W. G. Fredell, Warner-Lambert Research Institute; "Converting Laboratory Concepts to the Consumer Market" by Robert E. Skinner, Market-scope Research Company; "Polyolefins as Packaging Materials for Toiletries with Special Reference to Polypropylene" by William O. Bracken, Hercules Powder Company.

T. G. A. Educational Booklets

The educational booklets prepared by TGA and now being distributed to schools and colleges are getting a phenomenal reception. After a first mailing to 10,000 schools, more than 1,000 schools have requested additional booklets and 60,000 copies have been shipped, with more orders arriving. Another mailing to 10,000 additional schools is under way.
The set consists of six extremely attractive and well-written booklets covering "Make-Up," "Manicure," "Fragrance," "Grooming," "Hair" and "Treatment." In each, the section covering history is written by Jill Jessee, use by Myra N. Conklin, manufacture by H. D. Goulden, and marketing by S. L. Mayhem. The design and cover illustrations were done by Enid Edson and the graphic design of text pages and printing by E. C. Lavorata. For an over-all picture of the industry, these booklets will prove to be well worth the reading even by those actively engaged in the cosmetic industry.

Cutaneous Medicine Research

Formation of The National Foundation for Research in Cutaneous Medicine to support and promote research in the vast and neglected field of skin diseases has been announced by Louis L. Spirt, president of the new foundation's board of trustees.
The primary objective of the foundation is "to promote the advance of medical science in the field of cutaneous diseases, afflictions and ailments," and "to stimulate, support and coordinate research, experiments, tests and studies on a broad scale." From moneys collected, the foundation will allocate funds to support basic dermatologic research in hospitals, university medical schools and research institutes, and to individual doctors and scientists carrying on research projects in the field of skin diseases.
The foundation has as a secondary but extremely important objective an intensive educational program aimed at the general public on the subject of skin diseases. The program would involve the preparation and circulation of specially prepared articles and pamphlets on the causes, symptoms, prevention, alleviation and cure of such diseases. The campaign would eventually extend to special radio and television programs.
To the general public the field of cutaneous medicine remains largely unknown or misunderstood and the whole subject of skin diseases embarrassing or vaguely repellent, and essential research in the field has suffered from the consequent lack of public interest and support.
"We must convince the public of the urgent need for such research," Mr. Spirt said in announcing the new foundation. "These diseases physically—and mentally—cripple a vast segment of our population. They must be eradicated. To do this, research must be extended, must be done on a broad scale—and that means it must begin to draw support from a broad base."
Out of more than 80 organizations for various health purposes such as cancer, polio or multiple sclerosis, there is—or until now has been—no similar organization dealing exclusively with skin disorders.
Members of the still incomplete Medical Advisory Board of the National Foundation include: Dr. Marion B. Sulzberger, Professor of Dermatology, New York University Post Graduate Medical School; Dr. J. Lamar Callaway, Professor of Dermatology, Duke University School of Medicine; Dr. Frank C. Combes, Professor of Dermatology, New York University Post Graduate Medical School; Dr. Stephen Rothman,

SMART MERCHANDISING STARTS YOUR PROFIT PICTURE!

Product Performance Keeps It Running

REHEIS CHLORACEL

BASIC ANTI-PERSPIRANT INGREDIENT FOR GELS

(sodium aluminum chlorhydroxy lactate complex)

– available as a 40% w/w solution for use in making Cologne type sticks.

The merchandising techniques for introducing customers to your anti-perspirant and deodorant product may vary. But one factor is all-important in holding those customers... how well does your product do the job it's supposed to do! That depends on the basic ingredients you put into it. Superior performance translates into a superior selling record for your product.

Other fine Reheis anti-perspirant chemicals

CHLORHYDROL (aluminum chlorhydroxide complex)—for anti-perspirant creams, lotions, sprays and powders.

CHLORHYDROL S-5 (aluminum chlorhydroxide complex – modified) – for anti-perspirant gels.

Reheis can tailor any one of their anti-perspirant chemicals to meet the needs of your products. We suggest you write for free data and samples... and learn how Reheis quality can add to your profit picture.

REHEIS CHLORACEL Anti-perspirant gives *your* product *all* these advantages.

- **Effective anti-perspirant action**
- **Fine deodorant qualities**
- **Non-destructive to fabrics**
- **Non-irritating to skin**

FINE REHEIS CHEMICALS

REHEIS COMPANY, INC.

Manufacturers of Fine Chemicals

BERKELEY HEIGHTS · NEW JERSEY

4813

Professor of Dermatology, University of Chicago School of Medicine; Dr. Herbert Mescon, Professor of Dermatology, Boston University School of Medicine; Dr. Jonas F. Mullen, Professor of Dermatology, University of Texas School of Medicine; Dr. Harvey Blank, Professor of Dermatology, University of Miami Medical School; Dr. Earl D. Osborne, Professor of Dermatology, University of Buffalo; Dr. William L. Dobes, Clinical Professor of Dermatology, Emory University School of Medicine; Dr. Milton Reisch; Dr. Arthur C. Curtis, Professor of Dermatology, University of Michigan Medical School; and Dr. Lawrence Beinhauer, Professor of Dermatology, Pittsburgh University School of Medicine.

The Foundation's New York office is located at 370 Lexington Avenue, New York 17, New York.

New York City Bans Door-to-Door Medicine Sales

Door to door peddling of drugs, vitamin preparations and other medicines will be outlawed by the New York City Board of Health, according to Dr. Roscoe P. Kandle, Acting Commissioner of Health.

The Board recently approved "in principle" new provisions of the Sanitary Code which specifically prohibit door to door peddling of medicines, drugs, or medical devices. At a later date when the amendment has been put into exact and specific legal language, the new provision will be formally adopted and made part of the Sanitary Code.

Door to door peddling of drugs and vitamin preparations, Dr. Kandle said, has been a troublesome problem for the Department of Health. Many door to door peddlers make "wild, irresponsible and fraudulent" claims about the diseases their product will prevent or cure, he continued.

In the opinion of the Board of Health effective regulation of door to door sales is not possible. Therefore, in order to prevent fraudulent and dangerous practices the Board will prohibit such sales.

Haitian Vetiver

Mr. Louis Dejoie has announced that the increasing price of vetiver can be ascribed to the closing of "Etablissements Agricoles et Industriels Louis Dejoie," with sealing of the offices and warehouses and revocation of the company's licenses by presidential decree. Stocks of Haitian vetiver on hand should last for six months. Mr. Dejoie, defeated for the Presidency of Haiti by Francois Duvallier, remained in hiding for six months and obtained asylum in the Mexican Embassy, flew to Mexico and there obtained a visa to enter the United States. The essential oil properties, according to Mr. Dejoie, were confiscated even though controling interest had been sold to Americans and the sale registered at the American Embassy before the government seizure order.

Industry Finances

The drug and cosmetic industry as a whole still exhibits the optimistic face of recession-resistant operations, the nine months figures of sales and profit in some instances reaching new highs. *Avon Products, Inc.* reported record sales of $75,409,000 and record earnings of $5,598,000 for the first nine months of 1958; sales represented a 19 per cent increase, earnings an increase of 13 per cent over the same period in 1957. *Revlon, Inc.* sales, 15 per cent ahead of those in the same period of the preceding year, reached $80,040,000 while profit increased by five per cent to $6,945,000. Irving J. Bottner, vice-president and treasurer of Revlon has just been appointed to the presidency of the company's subsidiary, Knomark Company, Inc. Consolidated net income of the *Colgate-Palmolive Company* rose to $14,776,000 in the first nine months of this year, compared with $14,459,000 in the same period of 1957. Sales increased to a record total of $403,539,000 from $388,223,000. The proposed merger of *Warner-Lambert Pharmaceutical Company* with *R. J. Reynolds*, bringing diversification to each company that borders on divergence has been described as essentially a marriage of financial convenience. Reynolds will benefit in terms of a larger profit margin on sales volume and be provided with entry into domestic and foreign markets while Warner-Lambert will benefit from the financial and merchandising resources of the longer company. The merger, if consummated, will involve exchange of shares on a one-to-one basis.

Eli Lily and Company's estimated consolidated net sales for the first nine months of 1958 totalled $131,100,000, compared with $151,600,000 for the same period last year. The difference is entirely accounted for by lower sales of polio vaccine. Estimated consolidated net income for the period was $17,100,000, compared with $26,800,000 at the same time last year. *Parke, Davis & Company* reported record sales and earnings. Earnings for the first three quarters of 1958 were $18,581,000, compared with $17,212,000 for the same period in the preceding year. Sales were $125,213,000, up 6.5 per cent from the $117,589,000 of 1957. A stock dividend of two additional shares for each one now held is being voted. Sales and earnings of *Chas. Pfizer & Co., Inc.* set a new record in the first nine months of 1958. Sales were $160,395,000, seven per cent higher than the $150,259,000 in 1957, while profits reached $17,229,000, eleven per cent higher than the nine month total of $15,497,000 last year. Gains for the year were attributed in part to new antibiotic combinations and good results are expected from sales of Diabinese, the oral anti-diabetic drug, Stablets, a protected form of vitamin B-12 and Tran-Q, a growth promoting factor for beef cattle feeds. Pfizer Ltd. of Folkestone, Kent, England acquired, for about $8,000,000 most of the outstanding shares of Kemball, Bishop & Co., Ltd. The British company manufactures a line of fine chemicals including tartaric acid and tartrates, citric and gluconic acid and their salts, lithium salts and various organic

acids and other products. Sales of *Merck & Co., Inc.* for the first nine months of 1958 increased 11 per cent and net income was up 20 per cent over 1957 figures. Sales for the first three quarters of 1958 were $153,896,000 and net income was $21,108,000. Diuril contributed substantially to income and sales while sales and earnings for other important product groups —vitamins, steroids, antibiotics and vaccines—continued to be hampered either by weakening prices, lessening demand or both. The new Merck steroid, Decadron, may be released to the medical profession in November of this year instead of in 1959. *Abbott Laboratories'* sales for the first nine months of 1958 increased 8.1 per cent and earnings were five per cent greater than in 1957. Sales were $90,799,000 compared with $83,978,000 while earnings were $10,225,000 compared with $9,739,000. *Norwich Pharmacal Company* reported that sales and earnings were at record levels for the nine months ended September 30, 1958. Sales reached $27,331,000 compared with $24,431,000, while income amounted to $3,208,000 compared with $2,946,000. *G. D. Searle & Co.* reported for nine months sales of $25,007,000 in 1958, $23,042,000 in 1957 and net income of $5,427,000 and $5,236,000, respectively. *Carter Products* sales for the six months ending September 30, 1958 were $23,702,000 and $21,896,000 in the corresponding period of 1957; net income was $3,199,000 as against $2,649,000. *William H. Rorer, Inc.* nine month sales were $4,140,000 in 1958 as against $3,114,000 in the previous year; net income was $414,000 and $273,000.

Fragrance Foundation Convention

At the Fragrance Foundation's Ninth Annual Convention, Gregory Thomas, president of the Foundation, urged the industry in 1959 to make a careful survey of perfume uses, and outlined the Foundation's plans for an increased campaign in 1959.

Mr. Thomas pointed out that the continuing purpose was to win universal acceptance of fragrance products on all social levels, to educate all American women that fragrance is indispensable to good grooming and to convince American men that fragrance is a daily essential of feminine beauty care and should not be limited to a luxury for special occasions.

Officers for the coming year will be: H. Gregory Thomas, Chanel, Inc., president; Bernard d'Escayrac of Guerlain, Inc. and Pierre Harang of Houbigant Sales Corp., vice-presidents; A. L. vanAmeringen of vanAmeringen-Haebler, Inc., secretary; Joseph A. Danilek of Mary Chess, Inc., treasurer.

P & G Scholarships and Grants

Forty-seven colleges and universities throughout the country will award 60 Procter & Gamble scholarships for the 1959-60 school year as part of an educational aid program of nearly one million dollars a year. The scholarship plan, entering its fifth year next September, provides 240 four-year scholarships, one-fourth awarded each year, and makes available $144,000 in unrestricted funds to participating schools.

These funds are in addition to the P&G unrestricted grant program which provided $200,000 a year to universities and $110,000 to state and regional college and university associations. The company's fellowship program provides additional unrestricted funds. Unrestricted grants, controlled by the schools administering them, total more than $490,000 a year or more than half of the company's annual contribution to education.

In addition, the P&G program next year will include fellowships at graduate schools and a number of specialized research projects in dermatology, dental research and nutrition. Special education and scientific projects are also supported in the program.

Fair Trade Actions

E. R. Squibb and Sons during the past year has won forty injuctions of which thirty-one were permanent, and nine were preliminary, against concerns in Greater New York that had been charged with violation of fair trade prices of Squibb Products.

Several of the injunctions involved a vitamin product that had been repackaged out of large sizes and then sold below the unit package minimum Fair Trade Price.

Eli Lilly and Company has obtained a permanent injunction against Howard and Linder Drug Company, Inc., of New York City. The injuction restrains the defendant from violating Lilly's minimum fair trade prices established under the New York Feld-Crawford Fair Trade Act.

The constitutionality of Rhode Island's Fair Trade Laws has been upheld in an action brought by Johnson & Johnson against Narragansett Wiping Supply Co. and Windsor Rhodes Co.

N. I. H. Grants

The National Institutes of Health awarded 9,534 grants worth $136 million for research, training and construction to non-federal institutions during the fiscal year ended last June 30. Grants went to 699 institutions including some 28 foreign countries. More than two-thirds of the money was to support 7,028 research projects and $30 million was used to help build or expand 177 research facilities. A total of $6.4 million was invested in research fellowships to 2,329 in this country and 84 abroad. In addition, federal money supported 16 foreign scientists working in this country.

Vitamin Claims

A consent order approved by the Federal Trade Commission requires Timed Energy, New York, to stop falsely claiming that the vitamin and mineral preparation, Vita-Timed Capsules, is a safeguard against arthritis, diabetes, gastro-intestinal disorders, high blood pressure, pernicious anemia, or heart trouble; also, that gelatin-coated vitamins or those in sealed capsules lose their potency because of shelf age.

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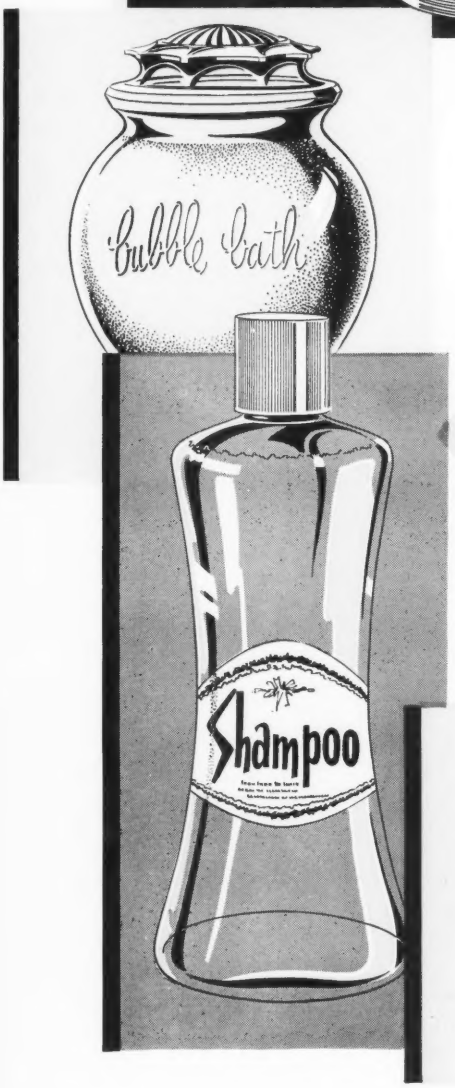

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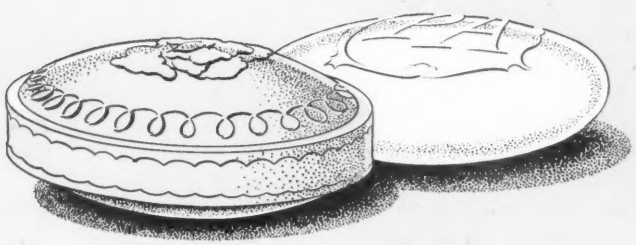

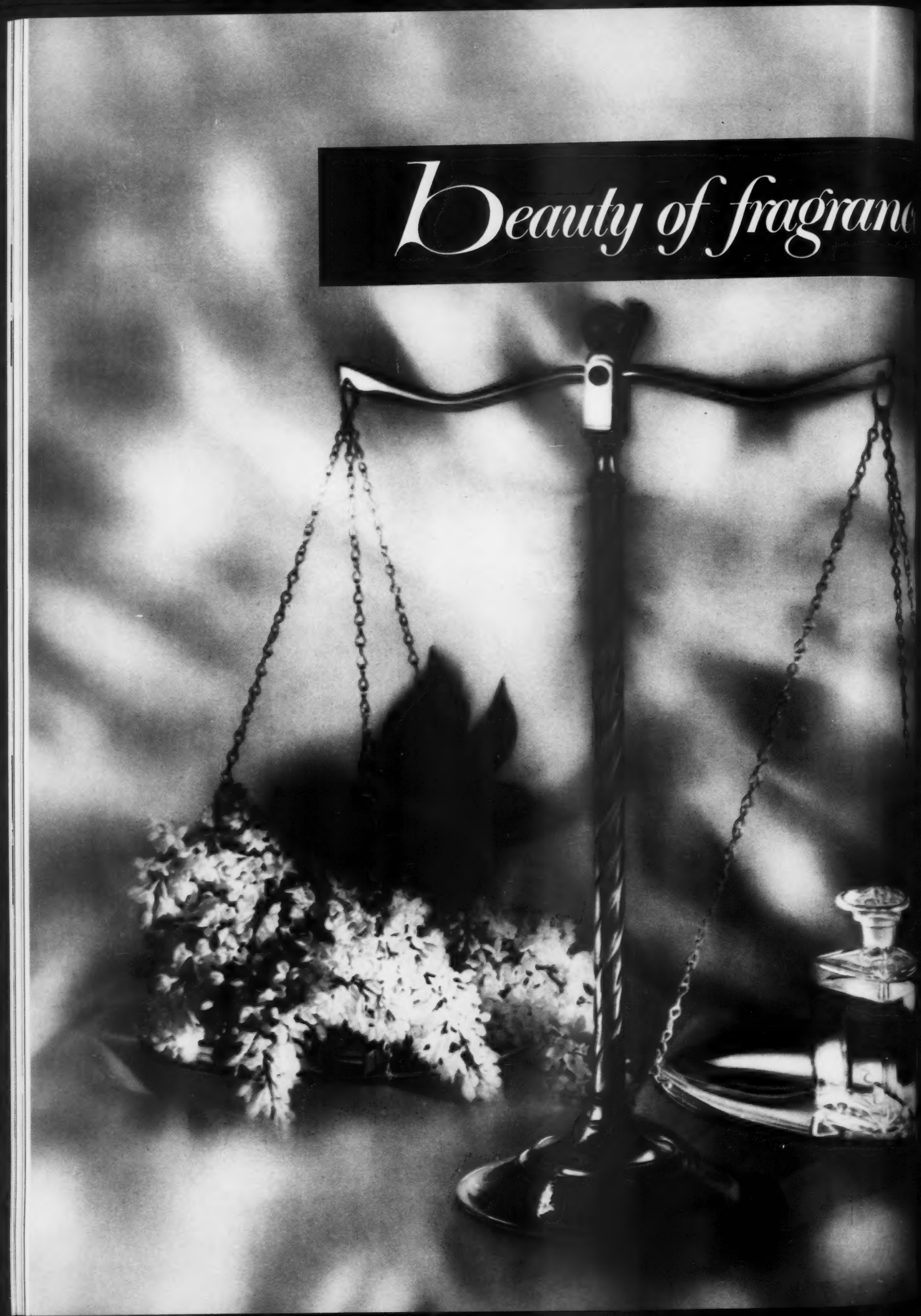
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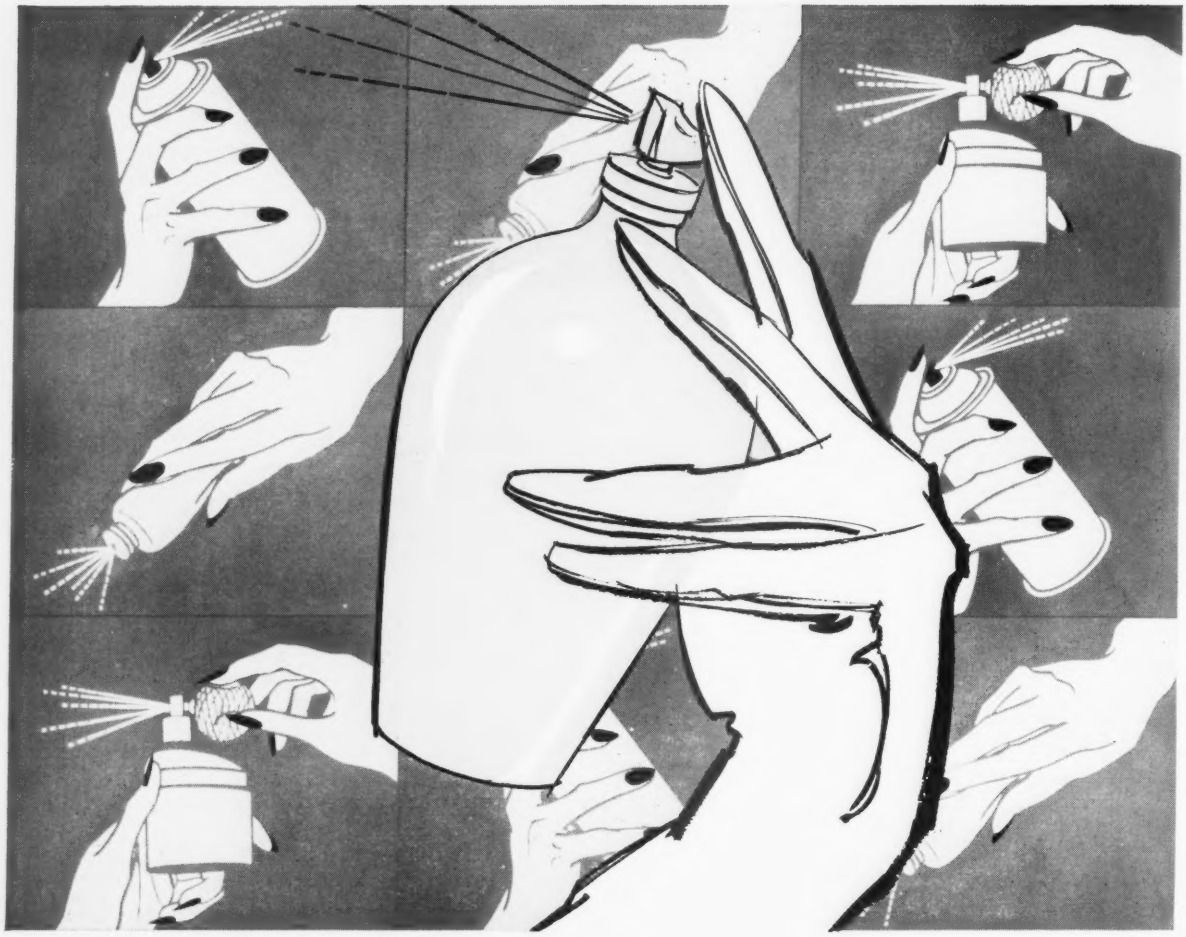

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SOCIETY OF PHARMACISTS IN INDUSTRY

As a further step pointing up the important role of pharmacists in industry, the new "Society of Pharmacists in Industry" held its first fall dinner meeting on October 9, 1958 at the New York Academy of Sciences. Elmer H. Bobst, Chairman of the Board of Warner Lambert Pharmaceutical Company was the guest speaker and the "Old Man of Pharmacy" emphasized that possibilities of pharmacy are not limited by the walls of the drug store. He made the point that the pharmaceutical industry needs pharmacists for research, production, sales and in any other capacities to which innate ability may lead.

Membership in the Society is limited to graduate or registered pharmacists, active members being employed in industry, associate members not employed in industry and only active members eligible to vote or hold office. More than 100 members, from 13 states, are now enrolled and the stated objective of the Society is "to promote a closer relationship among pharmacists in industry through the medium of presented papers, personal associations and interchange of ideas concerning the pharmaceutical industry."

The first officers of the Society are President, W. G. Fredell, Warner-Lambert Research Institute; 1st Vice-President, P. A. Pumpian, E. R. Squibb & Sons; 2nd Vice-President, M. L. Rosenthal, Robeco Chemicals, Inc.; Corresponding Secretary, V. J. DeFeo, Dodge & Olcott; Recording Secretary, G. Biel, Warner-Lambert Research Institute; Treasurer H. B. Bernstein, E. R. Squibb & Sons. The next meeting of the group is scheduled for January 1959.

SCC SEMINAR 1958

The fifth Seminar of the Society of Cosmetic Chemists, under the chairmanship of Dr. Henry Kreider, was held October 8 and 9 at the Barbizon-Plaza Hotel in New York. Almost 250 attended the sessions, which were marked by active discussion by panel members and from the floor. Luncheons, a cocktail party and dinner were held at the New York Academy of Sciences building. Even the rival attraction of the final World Series games was not able to cut into attendance at the scientific meetings.

The first session, "Biological and Clinical Aspects of the Lipids on the Skin," was moderated by Dr. Franz Herrmann of the Department of Dermatology, New York University Post-Graduate Medical School. Speakers were Dr. V. R. Wheatley of the Department of Medicine, University of Chicago, who discussed the "Biochemistry of Sebum;" Dr. A. M. Kligman of the Department of Dermatology of the University of Pennsylvania School of Medicine on "Biological and Clinical Features of the Sebaceous Secretion;" Dr. Leonard Harber of the Department of Dermatology of the New York University Post-Graduate Medical School, who reported on "Acid Number and Spreading Index of the Human Skin Surface Lipids;" Dr. Richard Scher, also of the New York University Post-Graduate Medical School Department of Dermatology, who discussed "Lipid Studies on 'Stripped' and 'Unstripped' Human Skin;" and Dr. J. S. Strauss of the Boston University School of Medicine, "The Pathologic Reactions Patterns of the Sebaceous Gland to Experimental Stress."

The succeeding panel discussion was led by Dr. Victor H. Witten of the Department of Dermatology, New York University Post-Graduate Medical School and Dr. Earl O. Butcher of the Department of Anatomy, College of Dentistry, New York University.

The second group of papers, moderated by Edward Sagarin of Embassy Laboratories was devoted to the "Significance of Consumer Testing to Research," with papers by Henry Brenner of Home Testing Institute, "Does Product Testing Make Sense;" Noel Swartz of United States Testing Laboratories, "Selecting Methods of Measurement;" Norman Ishler, General Foods Corporation, "Consumer Testing as a Guide to Product Development;" Clare Brown Amabile of Clare Brown Associates, "The Cosmetic Chemists Appraisal of Consumer Research."

The final session was devoted to "Theory of Solubilization," moderated by Dr. Emery I. Valko of Lowell Technological Institute. Dr. H. B. Klevens of the Mellon Institute discussed "The Solubilization Phenomenon" and Dr. J. H. Schulman of Columbia University reported on "Micro-Emulsion."

Plant trips were available to Avon Products in Suffern, N. Y., Helena Rubenstein in Roslyn, N. Y., and Van Ameringen-Haebler, Union Beach, N. J.

Dr. V. R. Wheatley, by means of gas chromatography of the fatty acids, was able to point out that there are important differences in sebum composition, according to the animal species. *Dr. A. M. Kligman* concluded that the sebaceous gland may well be a "vestigial" structure, no longer serving an important purpose. Since sebum is produced not only by the glands but also by breakdown of epidermal cells, the latter source may well be sufficient for the lubrication of the epidermis. Sebum secretion is determined by the size of the sebaceous glands and does not operate by the "stop and go" mechanism sometimes postulated, but takes place at a more or less regular rate. Sweating does not increase the secretion of sebum, but the higher temperature responsible for increased sweating will make the oily secretion flow more readily. The oily appearance of the skin depends not upon oiliness alone but upon the mixture of sebum and perspiration. *Dr. J. S. Strauss* reported that a typical reaction followed injury of any part of the pilosebaceous apparatus. Epithelial cells which do not secrete sebum replace the active sebaceous gland; this process is reversible and in time the sebaceous gland is reformed. The discussants did not by any means agree with Dr. Kligman's characterization of the sebaceous gland as vestigial, and diverse points of view were aired.

Clare Brown Amabile asserted that the growing field of consumer research can create markets by discovering needs. The "projective study" may, by indirect types of questions, elicit information otherwise psychologically blocked. *Henry Brenner* pointed out that consumer testing cannot actually predict whether a product can be successfully sold because it ordinarily cannot include the effects of advertising and promotion before they have been applied. Testing can tell what to aim for in the product, what performance

(*Continued on page 674*)

St. Sebastian Interceding for the Plague-Stricken, a panel from the Altarpiece of St. Sebastian. Note the Saint pierced with arrows in the sky.

BY DAVID A. AND ARTHUR H. BRYAN
JACKSONVILLE UNIVERSITY, JACKSONVILLE, FLORIDA

Ancient Wonder Drugs

THE HISTORY AND MYSTERY OF ANTI-PLAGUE FUMIGATION THERAPY FOR PHARMACISTS AND ALCHEMISTS

Early Biblical, pre- and post-medieval historical medical records indicate that man used to be confronted with widespread plagues and epidemics. Communicable diseases such as influenza, black plague, bubonic plague, pox, small pox, syphilis, asiatic cholera, malaria, and yellow, typhoid and typhus fevers, ravaged peoples the world over. The early alchemists and the physic dispensers attributed these plagues to devils and evil spirits. The only armamentarium available to control these unaccountables consisted of fantastic drug cures and divine faith healing. Consequently, to put these therapeutic agents on an etiological parity with devils, the early physicians and pharmacists developed superstitions and witchcraft with incidental evil-smelling drugs designed to drive the devils out of their patients. There is thus a close connection between drug cures, faith healing and first attempts at plague prevention by fumigation.

One of the earliest attempts at fumigation to control airborn plagues such as malaria (mal meaning bad and aria, air) and anthrax was practiced by the Ardennes shepherds in western Europe, who drove their animals through the smoke of midsummer fires to control and prevent sickness by the bewitchment of the sheep. In medieval Cornwall, the superstitious people used to dance and leap through bonfires to eliminate disease, figuratively burning up the invading spirits.

Precious stones came to be employed therapeutically in preventing the inroads of communicable diseases, ostensibly because of their beauty and costliness. The healing waters of the River Jordan were used in countries of the Near East and chemical analysis of the Dead Sea waters reveals several salts having modern therapeutic value. Today in Palestine, lepers come down to the Jordan to bathe in the cleansing waters to heal their sores, even as was done in Biblical times.

Pleasing aromatic odors were, and continue to be associated with cleanliness, a philosophy which is presumably the basis for the modern perfume and cosmetic industry. It is no wonder, then, that odoriferous drugs were designed to drive the devil out of the possessed, poor devils.

During the Middle Ages, people developed a mania for unusual and rare products, especially if they came from the Far East. Many of these curiosities

were quickly engulfed in superstition and magic. Particularly if they could be forced into the human system and some curative property could be attributed to them. Today, when new styles in art and music come out they are apt to become the rage, as in those mystic days when new healing substances often became highly prized.

The rarer the curative agent, the greater the demand, and before long its price would become so high that only aristocrats could afford it. New and fascinating substances were thought to be best suited for medicine if they had a foul smell and a vile taste. It got so bad that these superstitious and unscientific people would not be satisfied with a medical treatment unless it included some vile concoction, or a box of highly colored powders, pills, a magma or triturate.

Although these pseudo druggists were misdirected in their practice, a few of their hypotheses have been proved correct to a certain extent. Their ideas on plague indicate this, for it was considered that evil spirits lived in a victim, caused his death, and then passed on to another person. Although the ancient association of living demons with disease might seem absurd, it is in truth indirectly a correct assumption, in so far as demons could be said to be the then undiscovered microbes, and hence the theory was simply misdirected as to the nature and appearance of the demons involved. Another misconceived idea was that evil spirits from a dead person stayed around the house of the deceased and caused death. We use terminal fumigation today to prevent the spread of pathogens born by air, insects and dust during the post mortem.

Probably the most repulsive of the medieval medications was the use of animal secretions. Musk is a secretion from the abdominal gland of the adult male deer. Its use in fumigations was evidently derived from its being a valuable perfume fixative, while in medicine the druggist uses it as a stimulant and an anti-spasmodic. Civet, on the other hand, is a secretion from the scent pouch of an oriental cat. Its commercial use is as a perfume base, but it makes a strong smelling fumigant, too.

The Alchemist at Work, from Philippus Ulstadius Coelum Philosophorum, Paris, 1544, searching for "the great dissolvent of nature, alkahest."

The herbs, which are among the most respected of curatives, were almost always included in a medical prescription. Following the pattern of scarceness and newness of use, "Angelica," a medicinal plant the seeds and roots of which are used as a stimulant and tonic, came originally from the West Indies, and entered medicine as a cure for pestilence. Also in this group are the pharmaceutical plants marjoram, amomum and lavender, exhibiting characteristic smells, the latter of which has its origin in old English folk medicine. Most of the aforementioned herbs are aromatic and the smell of such curative substances was thought to influence the purification of pestilential air.

Evergreen shrubs such as rosemary and cloves were popular as fumigants, the latter giving off a specific volatile oil. The flowering plants included aromatic or balsam woods and roses. Roses in early chemists' shops were important because of their purity and their semi-religious associations connected with the Far East. The balsam of Peru and Tulu, which are still used today, were considered by our forefathers as balm for the body.

The largest category of fumigants was the resins, many of which come from the East. Probably the most familiar were frankincense and benjamin; the latter was used as a stimulant, expectorant and perfume. Next in familarity were bellium and myrrh, both of which yield gummy resins, along with rosin and turpentine, the former a combination of oil, turpentine and resin. Extractives of oleo resin of aspidium are still the basis for tapeworm treatment. The most unusual of the resins is amber, a fossil commonly found in the Baltic area, which, like most resins, gives off an agreeable odor when burned; consequently, in medieval times it was an anti-plague fumigant.

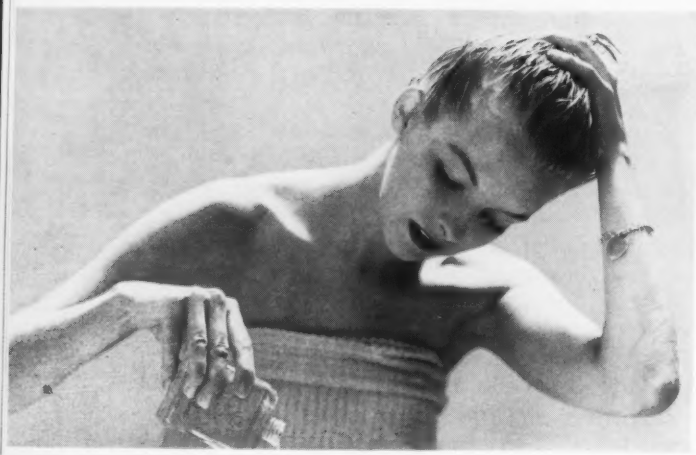
Some of the fumigants used in the great London plague had a positive effect on the disease incidence, particularly the resins and other acidic chemicals such as sulfur and its compounds. There is another aspect of these anti-plague measures that should be considered: the effect of the fumes on plague-ridden fleas? Did they resent the mystical smoke bombs and drop over dead as if hit by some insect spray such as D.D.T.? No, but these rodents, hosts along with their parasitic companions, were nonetheless enfumed and probably made an irascible retreat, or died in the attempt.

Medieval fumigation was at best only half rational, one-half recognizing the importance of a clean smell, while the other half engaged in devilry and superstition. It was from such hazy uses that fumigative medicine had its beginnings. Although we can't help laughing at these early fumbling quacks, many use-

(*Continued on page 656*)

QUATERNARY AMMONIUM SALTS IN COSMETICS

BY HARRY HILFER



COURTESY TUSSY COSMETIQUES

In the frantic search for new cosmetic items, several have appeared in the past fifteen years based on the use of quaternary ammonium compounds. As raw materials, these compounds have been largely neglected until recently, but they are now rapidly becoming one of the major classifications used in cosmetic formulation.

Quaternaries are actually inverted soaps, in which the long chain lipophile bears a positive charge while the relatively small hydrophile bears a negative charge, which is the reverse of a soap. The long chain portion, therefore, may be expected to react with negatively charged groups to produce a complex and it is this function, generally speaking, which is responsible for their use. Under proper conditions the quaternaries form addition compounds with negatively charged groups such as the carboxy group and these are not readily decomposed. This mechanism may be carried over into protein types of materials and we, therefore, have a method of endowing these materials with some of the functions possessed by the quaternaries themselves. The activity of the function of the quaternaries may be argued, but there is unanimous agreement on its substantivity to proteins and, consequently, to the skin and hair.

The substantivity manifests itself as a film whose properties vary with the type of compound used. In a broad general treatment of the subdivisions of the quaternary ammonium compounds for cosmetic use, two general functional types are used, one to impart bacteriostatic activity and the other to improve the texture, cosmetically, of the skin or the hair. The bacteriostats may vary in their molecular structure but they have in common the incorporation into the molecule of a twelve carbon chain or less which imparts this desired activity. The mechanism by which it works is not yet certain, hence I have used the term bacteriostat instead of bacteriocide. Some workers in the field have attempted to demonstrate that the quaternary mechanism is a surface phenomenon merely inactivating the flora rather than destroying them. However, there is also evidence to show that destruction of the flora is accomplished to about the same degree as is done by other *generally* topically applied germicides. Since this paper is confining it-

COURTESY ELIZABETH ARDEN

self to cosmetic usages, we will limit ourselves to the bacteriostatic claim, so that our claims may not be considered too broad. As such, they are now being used in such products as hair dressings, baby lotions, after-shave lotions and in a host of other preparations where the inactivation of the flora on the skin or hair surface is functionally desirable.

The proper choice of compound depends on the degree of irritation associated with its use as compared to its bacterial inactivation at any given concentration; and whether such concentration is great enough to maintain some activity after some of the quaternary has been inactivated, as some is bound to be, by incompatible foreign substances present or likely to be present on the surface to which it is applied. A large number of compounds react with quaternaries to produce a reaction product which is completely inactive. Perhaps the most commonly encountered is residual soap or other anionic detergents. In the case of an after-shave lotion, the efficiency of the quaternary would depend on the amount of residual soap present after shaving. The reaction between the soap and quaternary will be equimolecular. The concentration in the lotion, therefore, would have to be great enough (1) to inactivate all the soap present and (2) to do so with a sufficient excess to then perform its bacteriostatic function. Since the amount of residual soap is a variable dependent on the individual, the amount of quaternary inactivated would, of necessity, also be prone to the same variation. Hence we are faced with a set of circumstances making it possible for the same preparation to function properly on one individual as compared to another.

As has already been mentioned, the limiting factor in the concentration of the quaternary would be the irritation threshold. If this concentration is too low to allow for the relatively broad variation due to residual soap, there could easily be too great an incidence of irritation, or inactivation of function. A compound which, under ideal laboratory conditions, can inactivate skin flora at a concentration in parts per million will not be able to do its job unless this concentration remained after some is removed by incompatible materials present; but if its irritation threshold were in concentrations of, let us say, parts per hundred thousand, it is possibile that there would be complete inactivation or, if the concentration were sufficiently high, too many cases of irritation. The more important fact to be considered must, therefore, be a high nonirritation threshold.

The second group of quaternary ammonium compounds, those that function to impart a film which makes the surface more pleasing from a cosmetic standpoint, has in common the incorporation into its structure of a straight chain carbon group containing at least sixteen carbon atoms. These compounds are less active against surface flora but much more

COURTESY RICHARD HUDNUT

substantive than the shorter chain compounds. They are less soluble in water and, since the amount which is taken and held by the hair from any given concentration is dependent to a certain extent on the partition coefficient, the ratio of solubility in two different immiscible solvents, this smaller water solubility enables the hair or skin to hold it more firmly after application and rinsing.

Their largest single use is in after-permanent care and as shampoo rinses. In the case of the permanent, where the hair is subjected to a relatively rigorous treatment, this involves a reaction which first causes a surface decomposition of the keratin and is followed by its regeneration. As a result, the hair may feel somewhat coarse to the touch—and not as easily manageable. The function of the rinse is to coat the surface so that the hair feels softer to the touch and, because of the lubricity the rinse imparts, the hair is more easily combed. These preparations normally come as emulsion lotions containing about two to three per cent of the quaternary. In use, the lotion is diluted about one to eight prior to its application. The hair is thoroughly wetted with the dilution and then rinsed with water.

Because of their surface-active properties, these compounds are also being used as emulsifying agents in many different types of cosmetic preparations. In this connection an unusual attribute is the ability of

(*Continued on page 656*)

HEADACHE

BY BERNARD IDSON PH.D., JULIUS SCHMID, INC.

Fifteen million sufferers annually complain to doctors about headache, that is, about one-half of all patients, and probably four to five times that number suffer but do not seek medical attention. Only respiratory diseases outrank headache as the leading cause of industrial absenteeism.

Over 10 million pounds of aspirin, or about 16 billion tablets, are consumed yearly in the United States. This is enough for one dose every day of the year to every adult. Total drug sales of aspirin at the manufacturers' level has risen from five million dollars in 1939 to over 30 million. However, it is difficult to know how much was used for relief of cold symptoms or how much for headache. Over 20 million dollars is spent for TV headache advertising and at least 10 million for newspaper and magazine advertising.

Research into headache cause and cure is continuing at an accelerated pace. The veil is slowly lifting, yet the tremendous incidence of headache continues. Recurrent headache plagues over 60 per cent of the general population. The incidence is great among females, younger adults, the unmarried, the more highly educated, executives, students and professional people. Migraine is found in about eight per cent of the population.

Headaches are not only common, they're amazingly varied in origin. They may occur without any apparent pathology, or they may reflect serious disease. Fortunately, most are transient and can be traced to a slight fever or dietary indiscretion. Chronic long-term headache is termed migraine or tension headache, often grouped as vascular and nonvascular headache.

Vascular or migraine headaches result from increased pulsation in cranial arteries. A cause is difficult to establish. Eyestrain plus emotional tension may initiate one, while allergic reaction may set off another episode. Fatigue, hunger, excessive smoking, alcoholic drinks are other "trigger causes." Organic changes such as hypertension, premenstrual tension and menstruation rank high as auxiliary predisposing causes.

Treatment aims at relieving symptoms by (1) raising the threshold of pain, (2) interrupting the mechanism producing pain, and (3) reducing the emotional tension and anxiety associated with the pain.

Evaluation of clinical results is difficult. Pain is being dealt with. Pain is a subjective response complexly mixed with emotion and experiences. Patients' descriptions vary from one time to the next. Evaluation is probably best accomplished using the double-blind technique. A placebo and two or more drugs are given in random order, to a group of untrained subjects. Statistics are used to judge whether there is a true favorable response. Results can be affected by dosage level, timing, tolerance and chiefly by the idiosyncrasies of the patients. When tests are made under controllable conditions, an acceptable degree of accuracy can be achieved.

Drugs commonly used in the treatment of headache can be grouped into several categories: analgesics, sedatives, anticonvulsants, stimulants of the central nervous system, drugs acting directly on the blood vessels (vasodilators and vasoconstrictors), histamine and antihistamine agents, diuretics, vitamins, hormones and drugs acting on the autonomic nervous system. Regardless of the above numbers, only two general types of analgesics are prevalent in clinical use, namely, the nonaddicting or antipyretic and the addicting or opiate analgesics.

The most practical and useful analgesics in the treatment of headaches are the antipyretics: acetylsalicylic acid and acetophenetidin. They act by raising the threshold of pain, possibly through depression of pain centers in the thalamus. The types of pain relieved by these antipyretics are of low intensities, such as those complained of by the sufferer from the occasional headache or from those associated with mild periods of stress, physical or emotional.

Analgesics have a ceiling beyond which no additional increase in the threshold of pain is obtained. Thus 0.65 gm. (10 grains) aspirin secures a maximum analgesic action. The duration of action may be prolonged by the administration of frequent doses. Combinations of analgesic drugs do not have an additional effect, that is, the administration of codeine and aspirin raises the pain threshold only to the level obtained with codeine. Analgesics do not potentiate the hypnotic action of the barbiturates, but the barbiturates potentiate the action of analgesics.

Salicylates are the main nonaddictive analgesics. The various salicylates are effective relievers of low-order headaches. They are all absorbed very rapidly

after administration, chiefly from the upper gastrointestinal tract. Peak levels are obtained in less than an hour and then there is a slow decline. By far the most common is acetylsalicylic acid (aspirin). It is available in numerous combinations, among which are plain tablets, capsules, enteric coated tablets, saccharinated tablets for sublingual use, the aluminum salt, or as a chewing gum.

Sodium gentisate, a biological oxidation product of salicylate is claimed to have an antirheumatic activity equal to or greater than salicylates with reduced toxicity.

Salicylamide and p-acetaminophenol have been promoted as more rapid analgesics. While this claim may be debatable, their lowered reactivity has found use in liquid dosage forms where acetylsalicylic acid is unsuitable.

In recent years the mild but evident gastric irritant properties of aspirin have been advertised and widely exploited. Addition of buffering agents, such as magnesium aluminum hydroxide or glycinate, are claimed to provent this upset. Buffered aspirins have made quite a dent in the aspirin market. They are claimed to yield speedier relief. These claims have been supported by some clinical evidence, but found lacking in others. Enteric coated aspirin is another effective means of avoiding gastric distress in hypersensitive patients.

Combinations of analgesics too numerous to mention have been compounded utilizing many ingredients. Typical are a combination of calcium succinate and aspirin or a composition of salicylamide, ascorbic acid and lemon bioflavinoid complex. The most famous and widest selling composition is aspirin (3½ gr.), caffeine (½ gr.) and acetophenetidin (2½ gr.), or APC. Codeine (⅛ to ½ gr.) is often incorporated, or Demerol, and these are addicting drugs.

In nervous tension and anxiety headaches, where pain perception is prolonged and intensified, central nervous stimulants are added. Laboratory studies have indicated that amphetamine sulfate and dextro amphetamine are similar in their peripheral effects, but the action of d-amphetamine sulfate on the central nervous system is one and one-half to two times as pronounced as amphetamine sulfate. Dextro-amphetamine combined with a salicylate is an effective analgesic-stimulant combination.

Headache therapy with aspirin is difficult to subdivide from common cold or skeletal aches. However, in the latter there is usually combination with N-acetyl-p-aminophenol or with skeletal relaxants such as mephenesin. Sinus headache remedies often include ephedrin.

Opiate analgesics, such as morphine and methadone, are not indicated in the treatment of chronic headache because of the possibility of addiction. Codeine (methylmorphine) possesses far less analgesic potency than does morphine, but it is an effective, relatively safe agent for the treatment of severe headache. Although both tolerance and addiction from continuous use have been recognized, these conditions are uncommon. Combined with acetylsalicylic acid, codeine is a common remedy for many types of headache, but it is of little value in the treatment of migraine at the height of an attack. It is of value in cases of migraine in which the headache has been present long enough for the vessels to become edematous and firm, or in which spasm of skeletal muscles has ensued.

Migraine headache has been defined as a "symptom complex characterized by periodic attacks of headache, with or without associated symptoms, in a person who has a background of well-being between attacks." A migraine headache may begin any time. It usually starts on one side, then may spread to the other and become generalized. This dilates blood vessels. As the headache pounds harder, the vessels balloon, standing out like knotted cords under the skin of the scalp.

Ergot preparations are most commonly used for treatment. The main medication is ergotamine tartrate tablets. The effectiveness is probably due to direct action on the smooth muscle of the blood vessels producing a vasoconstriction and a decrease of pulsation. Ergotamine tartrate is often combined synergistically with caffeine. Rectal suppositories have also proven very efficacious when oral medication cannot be retained. Sublingual administration is often helpful to avoid relatively poor absorption in the gastrointestinal tract. Dihydroergotamine methane-sulfonate, by injection, is given to those who cannot tolerate ergotamine tartrate. Ergot derivatives have also been combined with antispasmodics, central nervous system stimulants, antiemetics and the like. These preparations are naturally suited to the individual patient's need. Reserpine, Chlorpromazine, and Dramamine have been used widely with some degree of success, especially where hypertension is a complication.

Tension headaches, unlike migraine, produce little or no nausea or unusual disturbance. They are usually dull, nonthrobbing and nonlocalized. While the cause of tension headache is not known, the evidence

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ETHICAL PHARMACEUTICAL PROMOTION*

BY KENNETH BROWN ADVERTISING DIRECTOR, WYETH LABORATORIES

The multiplicity of sources from which the physician obtains new product information today demands that the information be consistent, factual and precise, despite the quarter from which it may emanate. The diverse over-all format of medical promotion requires that prescribing information be as complete on a file card as it is in the Food and Drug Administration-approved direction circular. One must remember that a physician can receive as many as eight exposures to a single product a day through his direct mail, his detail man, his journals and his druggist. Following any one of these exposures he may want to write a prescription and, at this point, product name, indication, dose and caution must be immediately apparent and available to the physician, or we, as manufacturers, have failed and a prescription has been lost. The fact that today we are marketing over 400 new products yearly indicates the amount of promotion and advertising required. I can't help but inject here what I once heard a medical advertising analyst say: "The fact that you hear so many complaints from physicians about the amount of advertising shows to what degree they are paying attention to it."

And because physicians do pay attention to medical advertising—at least in one of its many forms—we, who produce it, have a responsibility for its factual, accurate content, and for its professional presentation. Spurious, misleading advertising has no place in the policies of any pharmaceutical house. *The risk far exceeds any possible gain. The efficacy of the product is the basis for the final judgment.*

Medical promotion at its best is a self-policing force in both intent and practice. The Food and Drug Administration has no legal control over claims for a drug's action apart from its toxicity. It does, however, have extraordinary power to invite a company to Washington for a discussion of misleading claims. I dare say that there is no pharmaceutical manufacturer who has not answered such an invitation. This service of the FDA, as well as the industry's ability to keep its own house in order, were among the points brought out in the recent testimony before the Blatnik sub-committee in Washington. Let us remember that those who were brought before the committee to testify and who presumably would have well-defined and authoritative points for complaint, were firm in their support of the quality of medical promotion in general. The essential complaint was the method by which claims in medical advertising are referenced and documented.

The pressure of competition being what it is today, the closely parallel lines of research that many companies follow, the alleged abuses in the use of personal communications and to-be-published references —all these make the period between the time a new drug application becomes effective and marketing day a difficult period of rapid assessments and decisions which is better imagined than described.

In all this, I must picture for you the dilemma. A company has an effective new drug application, adequate clinical evidence in support of its FDA accepted claims. But, there are no published references because clinical investigators cannot secure early publication of their papers. Nevertheless, the drug is worthy. It then becomes contingent upon the skills of medical advertising, in the absence of a body of published evidence, to obtain physician acceptance. At this point the frightening responsibility of those who create medical promotion is most fully apparent. The gamble is large and there is much at stake. We must convince physicians to trust that use of the drug in their practice will match the evidence supplied by

*Abstracted from an address at the 79th annual convention of the Texas Pharmaceutical Association.

clinical trials. Lurking always is the possible adverse effect of a drug in chronic use, not by ten thousand patients in clinical trials but by fifty or a hundred thousand patients given the drug over prolonged periods. No practicable method of predicting all the results of long-term use by great numbers of patients has been found.

We must command attention or, no matter how efficacious a drug may be, few physicians will prescribe it. Medical promotion, and I use this term to embrace not only advertising but sales promotion and all the other forms of communication, is the tool by which attention is created, by which the health professions know that we are in the marketplace with something new for their pharmacy or medical practice. This costs money—a tremendous outlay for even a modest launching.

We in the industry, the physician and the pharmacist, all have a mutual trust that stands unique. It is through the ethical nature of our promotion that the pharmaceutical manufacturer and the pharmacist establish physician trust, and build our house image. This relationship is priceless. To destroy it is suicidal.

I have touched so far on the unavoidable fact of the great amount of medical advertising; secondly, on certain abuses, which are a result of unalterable conditions within, rather than a true fault of, the industry; and, lastly, the basic, essential fact that there is an absolute need for this medical advertising. I would like now to touch upon another aspect of pharmaceutical promotion.

Pharmacists *have to like* how we present our products. Pharmacists *have to like* what we say about products. In short, pharmacists *have to like* how we promote them and to know that they will do the job for the patient and make money, before they will establish a place on the prescription pad or in the order book.

The problem of commanding attention has led the pharmaceutical industry far afield from the methods employed ten years ago. One would think that every possible form of communication is now employed to arrest the physicians' and the druggists' eyes and ears —journals, direct mail, detail men and their literature, conventions. Of these there can be no let-up in any form that provides the M.D. and the druggist with the vital, essential information they need.

But still another new medium has been proposed. The new means of communication would be a vast closed-circuit radio network supplying music, notes on journals, books, studies and new drugs; plus restrained, but paid for, commercials by American pharmaceutical houses and others.

The need for repeated mailings, journal advertisements, medical meetings, which report accurate, concise information on illness and its management is inescapable.

Moreover, doctors *have to like* what we say about our products. While the Blatnik committee investigation was directed primarily at the advertising practices of the ethical pharmaceutical industry with regard to tranquilizers, it superficially surveyed the promotional practices of the industry in all areas. Complaints were aired that pharmaceutical firms were not clearly spelling out the proper use of drugs, were giving only favorable actions and failing to report in detail undesirable and dangerous side-effects. It was stated that some physicians reported pharmaceutical firms were abandoning the scientific approach in their promotional materials and methods and were using the same techniques used to sell soap and automobiles.

The pharmaceutical industry is cognizant of the fact that in dealing with physicians and druggists they are dealing with sophisticated persons who cannot easily be fooled by obvious promotional schemes. It is not their intention to do so. The Pharmaceutical Manufacturers Association states that it is well aware of its responsibilities and obligations to promote the public welfare and to maintain honorable, fair, and friendly relations with the medical profession, with associated sciences, and with the public. Poor scientific work and unscientific articles can be managed by efficient editors of medical journals. Pharmaceutical firms themselves regulate their promotional materials with great care by an elaborate system of internal and external checks and balances. If an inadvertent, unintentional mistake is perpetrated, f a n t a s t i c lengths are employed to rectify it. The principles already mentioned, and listed below, are the broad guiding concepts of the ethical pharmaceutical industry as adopted by the new Pharmaceutical Manufacturers Association. Adherence to these principles is not only desired but is required:

(1) Prompt, complete, conservative, accurate information concerning drugs shall be made available to the medical profession.

(2) Adequate and acceptable scientific evidence must support any product claims made in promotional literature. Ambiguity and implied endorsement must be avoided. If unpublished data are the basis of promotional material, these data must be available to the physician on request.

(3) Changing or distorting the true meaning of the author of quotations culled from the medical literature will not be tolerated.

(4) Comparisons of drugs will be made only when they are constructive to the physician and are made on sound professional and factual bases. Trademarks may be used only with the consent of their owners.

(5) Information on clinical applications of drugs in the lay press prior to presentation to the medical profession is not in the best interests of the medical profession or the layman.

(6) All medical information in promotional materials should have medical review prior to release.

(7) The executive committee of the PMA will

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HAND CREAMS AND LOTIONS

BY MARVIN K. COOK CONSULTING CHEMIST

COURTESY PROCTOR & GAMBLE

Hand preparations may be firm creams, creamy fluids or thin soap-mucilages. Apart from their beautifying action, they may be regarded as essential cosmetics because of the protection they afford the skin of the hands, arms and legs, particularly during cold weather. Furthermore, these preparations are helpful in ameliorating the defatting action of soaps and detergents and the untoward effect of water on skin after protracted immersion and exposure.

These products are intrinsically skin-softening and rehydrating agents. They are believed to work by first softening the dry corneum layer, thus paving the way for gradual reabsorption of water. The oldest preparation, which even today enjoys some sales, is the simple glycerine-rose water mixture, the only important modification in recent times being the partial replacement of the glycerine with sorbitol.

In a recent study, Powers and Fox reported that glycerine and propylene glycol, two well-known humectants, when applied to the skin, consistently and repeatedly *increased* the amount of moisture lost to a dry atmosphere. They assumed that these humectants will draw moisture *from* the skin in low humidity atmospheres (a common occurrence in winter) rather than "moisturizing" the skin as previously believed. However, at humidities over 30 per cent, the authors feel that moisture pickup from the atmosphere should result. They state with fairness that "glycerine-emulsifier systems will behave quite differently from glycerine alone and proper formulation will undoubtedly give a lower moisture loss from the surface, resulting in a softer skin."

As regards skin dryness caused by synthetic detergents, sulfated and sulfonated detergents may have a rather strong degreasing action on the skin. Alone, they are milder than soap, from a standpoint of alkalinity.

It is believed that sebaceous oil secretions are hydrophilic possibly because of the presence of cholesterol, which assists in the retention of skin moisture. While brief immersion in detergents causes only a temporary loss of natural skin lipids, frequent and extended immersion may result in impaired lipid regeneration.

The sensation of dryness often persists after replenishment of skin lipids following the use of a synthetic detergent, and this has been ascribed to the superior penetrating properties of anionic detergents. Szakall proposes an interesting theory regarding the feeling of skin dryness. It is his opinion that this results from the effect of the detergent solution on the stratum lucidum which he considers the true protective chemical barrier of the skin. Measurements of the skin's pH at different levels revealed that maximum acidity is concentrated at the stratum lucidum layer. Moreover, the lucidum layer has a higher water content than adjacent layers and contains 42 per cent of water-soluble substances. Szakall suggests that anionic detergents not only defat but remove also some of the water-soluble substances from the barrier layer, causing an unpleasant feeling.

Hand creams and lotions fundamentally are modified vanishing of the O/W type which differ from each other in solids content. The basic formula for a conventional vanishing cream comprises free stearic acid, a soap emulsifier (usually a stearic acid soap formed in situ) a humectant and a relatively high proportion of water. The 3 stearate soaps normally encountered are obtained by using potassium hydroxide, sodium hydroxide and triethanolamine, either individually or in combination. Sodium stearate rarely if ever is used alone because of the hard films it forms. Triethanolamine soaps are by far the softest and have the greatest solubility.

There is a very wide selection of emulsifiers since the introduction of nonionic and cationic agents and many useful combinations are available to the formulator. The most popular are the anionic emulsifiers and the following formulas serve to illustrate their use.

GENERAL FORMULA #1 HAND LOTION

Stearic acid	5.0
Mineral oil	1.0
Sorbitol	3.5
Potassium hydroxide	0.4
Triethanolamine	0.2
Preservative	qs.
Perfume	qs.
Water	89.9
	100.0

GENERAL FORMULA #1A HAND CREAM

Stearic acid	15.0
Mineral oil	2.0
Sorbitol	10.0
Potassium hydroxide	0.6
Triethanolamine	0.3
Preservative	qs.
Perfume	qs.
Water	72.1
	100.0

For improved skin feel and emollience, fatty acid esters (isopropyl palmitate and isopropyl myristate) and fatty alcohols (cetyl and stearyl) may be incorporated. Usually very small quantities are required to achieve the desired effect. In stearate-based lotions, fatty alcohols and fatty acid esters are used in necessarily low quantities to avoid excessive thickening during shelf-life.

The addition of a gum to anionic-stearate preparations offers very definite advantages. There are numerous natural and synthetic hydrocolloids which are useful in this connection and these would include karaya, tragacanth. quince seed, guar, Irish moss, alginates, carboxymethylcellulose and colloidal clays. These products are excellent stabilizers and often exert a pleasant feel on the skin. Furthermore gums, by virtue of their water-holding properties, carry lotions and creams during the critical stages of application and prevent the watery feel associated with emulsion inversion.

In addition, gum-stabilized lotions and creams may contain ethyl alcohol, the percentage of which is kept rather low because of the possibility of precipitating the hydrocolloids. If high pearliness is desired in stearate-gum lotions, it is most easily achieved by partially saponifying the stearic acid with potassium hydroxide or triethanolamine and allowing the mixture to age for at least 48 hours at room temperature. Free oils and fats must be excluded. The product may then be worked into the thin mucilage and colored if desired.

In gum-soap preparations, it is essential that the cosmetic be formulated to produce a stable, flowable state even after extended storage. The choice of ingredients and the mode of manufacture markedly influence the viscosity. The following are representative of anionic stearate-gum lotions and creams.

GENERAL FORMULA #2 HAND LOTION

Stearic acid	5.0
Sodium alginate	0.2
Triethanolamine	0.4
Sorbitol	3.5
Preservative	qs.
Perfume	qs.
Water	90.9
	100.0

GENERAL FORMULA #3 HAND LOTION

Stearic acid	6.0
Glycerine	5.0
Lanolin	1.0
Tragacanth mucilage (2% solution)	10.0
Potassium hydroxide	0.4
Triethanolamine	0.2
Perfume	qs.
Preservative	qs.
Water	77.4
	100.0

GENERAL FORMULA #2A HAND CREAM

Stearic acid	15.0
Mineral oil	1.0
Glycerine	8.0
Triethanolamine	0.5
Potassium hydroxide	0.7
Tragacanth (2% solution)	20.0
Perfume	qs.
Preservative	qs.
Water	54.8
	100.0

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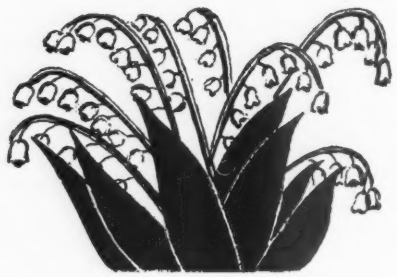
COURTESY HIRESTRA LABORATORIES, INC.

PERFUME FORMULATION

THE MUGUET GROUP

BY J. R. ELLIOTT, PERFUME-FLAVOR CONSULTANT



The mutual characteristic of the members of the muguet group is an intensely sweet yet ethereal lily note. Muguet is the most lily-like of the group. Orchid is basically a Muguet with amyl salicylate modifications. Clover is muguet plus amyl salicylate and coumarin. Cyclamen is muguet with a heavy accent on the hydroxycitronellal and cyclamen aldehyde. Magnolia is muguet plus neroli and citral notes.

The characteristic lily note is best illustrated by the single material, ylang absolute, when it is diluted to about one-half per cent in alcohol. In actual compounding work the cost of ylang absolute restricts its use to the role of adjuvant.

The lily note was originally built upon Linalool and Terpineol. When hydroxycitronellal (sometimes called lily aldehyde) was developed, it was added to this pair, and quickly became pre-eminent as the lily base. This trio of materials is still in use today, although terpineol is gradually receding into the background.

The later development of cyclamen aldehyde (isopropyl alpha methyl hydrocinnamic aldehyde) and the so-called "Cumin" ketone (a chemical variant of the cyclamen aldehyde) have further changed the lily picture for the better. In very recent years the advent of the propylene glycol cyclic esters of phenylacetaldehyde and hydratropic Aldehyde have helped to increase fidelity to the lily note. These materials are only touched upon in this text, because they are so new that they have not been adequately explored. The Schiff's base of amyl cinnamic aldehyde—methyl anthranilate, a material not too well known, but highly useful, has a combined lily-honeysuckle note, which gives a strikingly sweet nuance in muguets.

MUGUET

The muguet or lily of the valley is a flower having many species, each with its individual nuance. In general, however, the perfumer concedes to two fragrances: the forest muguet, and the cultivated spring muguet. The "forest" type is sweeter and more rosy than the cultivated type, which is more delicate and lilac-like.

The following are the "purpose" classifications of the muguet components:

Basics. Hydroxycitronellal, linalool, terpineol, cyclamen aldehyde, "Cumin" ketone, the propylene glycol cyclic acetals of phenylacetaldehyde and hydratropic aldehyde, the Schiff's base of amyl cinnamic aldehyde and methyl anthranilate.

Blenders. Ylang Bourbon extra, ylang absolute, rhodinol, citronellol, geraniol, nerol, dimethyl octanol, hydratropyl alcohol, phenylethyl alcohol, tolyl alcohol, linalool, oil of lemon, oil of bergamot, benzyl acetate, benzyl propionate, cinnamyl acetate, phenylpropyl acetate, benzyl isovalerate.

Adjuvants. Phenylpropyl alcohol, aldehyde C-14, sandalwood oil, phenylacetaldehyde dimethyl acetal, heliotropine, oil petitgrain, oil sweet orange, anisic aldehyde, anisyl alcohol, methyl cinnamate, methyl heptine carbonate, amyl benzoate, amyl salicylate, oil of cardamon, tolyl aldehyde.

Fixatives. Musk ketone, Musk xylol, indole, skatole, civet, phenylethyl salicylate, para cresyl phenylacetate, gum benzoin, benzyl cinnamate.

Naturals. Tuberose absolute, rose otto, rose absolute, jasmin absolute, jonquille absolute.

Comment. In the compounding of muguet (and such clearly odor-related flowers as the Easter, madonna, white, yellow and amaryllis lilies) the delicacy of the basic materials for these fragrances should be

clearly recognized. The blenders and adjuvants must be employed skillfully and in relatively small quantities, to avoid overpowering the characteristic, but delicate, basic note of lily.

MUGUET DE MAI E.015

(1)	30	Hydroxycitronellal
(2)	15	Rhodinol
(3)	10	Heliotropine
(4)	25	Phenylethyl alcohol
(5)	5	Hydratropyl alcohol
(6)	5	Linalool
(7)	12	Linalyl acetate
(8)	5	Benzyl acetate
(9)	8	Tolyl acetate
(10)	3	Terpineol
(11)	2	"Cumin" ketone
(12)	1	Ylang absolute
(13)	1	Oil lemon Italian
(14)	2	Dimethyl octanyl acetate
(15)	1	Anisic aldehyde
	125	

The foregoing composition represents the "springtime" muguet, which is more flowery than the "forest" muguet. This floweriness is built around the rose effect. Note the high percentage of rose materials (2, 4, 5, 14) and the lilac components (3, 8, 9, 3, 12, 15).

MUGUET DES BOIS E.016

40	Hydroxycitronellal
10	Rhodinol
10	Linalool
15	Linalyl acetate
8	Heliotropine
5	Benzyl acetate
2	Amyl cinnamic aldehyde
80	

MUGUET EXTRA E.017

(1)	35	Hydroxycitronellal
(2)	5	"Cumin" ketone
(3)	2	Amyl salicylate
(4)	6	Phenylacetaldehyde propylene glycol acetal
(5)	20	Phenylethyl alcohol
(6)	5	Hydratropyl alcohol
(7)	15	Linalool
(8)	8	Benzyl acetate
(9)	70	Rhodinol
(10)	10	Indole 10% in DEP
(11)	2	Cuminic aldehyde 10% in DEP
(12)	8	Amyl cinnamic aldehyde
(13)	3	Phenylethyl propionate
(14)	6	Geranium Algerian
(15)	5	Alpha ionone
(16)	10	Musk xylol
(17)	2	Musk ketone
(18)	13	Diethyl phthalate ("DEP")
	225	

The foregoing composition E.017 shows a muguet of the "Mai" type with an elaborate floral background. Note the heavy use of rhodinol (9) and indole (10) with the "flowering" agents (2, 3, 13, 15) and the musk fixatives (16, 17). This type of composition is excellent as a foundation in the creation of other floral fantasies.

MAGNOLIA

There are many species of magnolia that are fragrant in some degree, but not all of them can be described as pleasantly fragrant. In this discussion the familiar southern magnolia (M. grandiflora) is the only one considered. This is a tree often reaching great height with glossy, large green leaves, and cup-shaped flowers of about ten inches in diameter. The blossoms are intensely fragrant at night. Their odor is described as a mixture of ylang and orange blossoms. The single aromatic chemical best representing magnolia is phenylethyl dimethyl carbinol.

The following are the "purpose" classifications of the various components of the magnolia fragrance:

Basics. Phenylethyl dimethyl carbinol, benzyl dimethyl carbinol, guaiac wood resin, ylang absolute, ylang Bourbon extra, oil cananga terpeneless, hydroxycitronellal dimethyl acetal, phenylethyl alcohol.

Blenders. Linalool, rhodinol, citronellol, dimethyl octanol, geraniol, oil of lemon Italian, oil sweet orange Californian, oil bergamot, oil of petitgrain, terpineol, amyl cinnamic aldehyde, oil mandarin Italian.

Adjuvants. Eugenol, isoeugenol, hydroxycitronellal, isobutyl cinnamate, anisic aldehyde, ionone alpha, methyl ionone, heliotropine, oil of coriander, oak moss, aldehyde C-14, labdanum resin, vetyverol.

Fixatives. Musk ketone, musk xylol, balsam tolu, balsam Peru, benzylidene acetone methyl, benzyl isoeugenol, amyl benzoate.

Naturals. Rose, jasmin, tuberose and orange flower absolutes.

MAGNOLIA E.018

40	Hydroxylcitronellal
30	Methyl ionone
30	Phenylethyl alcohol
50	Musk ketone
25	Ylang Bourbon extra
10	Amyl cinnamic aldehyde
15	Benzyl acetate
18	Oil bergamot
12	Isoeugenol
20	"Alpine Violet" standard
10	Sandalwood oil
15	Vetyverol
10	Musk ambrette
25	Linalyl acetate
20	Hydroxycitronellal-methyl anthranilate base
10	Cinnamic alcohol

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COURTESY LEDERLE LABS.

DISINTEGRATION OF COATED TABLETS

BY L. G. BRUNS AND C. LEE HUYCK ST. LOUIS COLLEGE OF PHARMACY AND ALLIED SCIENCES, ST. LOUIS, MO.

This study records the disintegration times of some commercially available coated tablets by the use of a modified U.S.P. XV method now being considered for adoption.[1]

Some investigators maintain that food remains in the stomach for about 100 to 220 minutes,[2] and water is evacuated in 10 to 20 minutes. Other investigators[3] have stated that drugs for the most part are absorbed by the intestinal mucosa and that absorption is fairly complete by the time the colon is reached. This leads us to believe that most coated tablets, in order to release their medicament properly, must disintegrate primarily in the stomach, releasing the drug for absorption as it reaches the intestine. Exceptions must be made for enteric coatings and time disintegration tablet coatings.

The above statement will not necessarily hold true for all drugs, but it does agree somewhat with Ewe's[4] concept that the disintegration time of coated tablets should be from 20 minutes to 2 hours. Stephenson and Smith[5] have suggested that the British Pharmaceutical Codex standard should allow not more than 30 minutes more for sugar-coated tablets than the normal two-hour disintegration time for uncoated tablets.

The U.S.P. XV[6] has fixed the disintegration time for coated tablets at 60 minutes in excess of the disintegration time for the uncoated tablet when the tablet is subjected to simulated gastric fluid T.S. followed by simulated intestinal fluid T.S.

The disintegration of tablets is determined by various methods, using suitable equipment for each. We chose to use the basket-rack apparatus having six tubes and a wire cloth bottom corresponding to that proposed by Volckringer[7] and the official U.S.P. XV[6] disintegration test equipment.

Experimental

Twenty-eight sugar coated tablets available from 20 ethical pharmaceutical houses were tested. The U.S.P. XV disintegration test was modified, in that plastic discs (supplied through the courtesy of Abbott Laboratories) rode the tablets to furnish a rubbing action. This additional equipment was used to simulate the gastric movements *in vivo* by rubbing the tablets very gently. The tablets were allowed to disintegrate in the simulated gastric fluid T.S. at 37°C., plus or minus 2 degrees. When the tablets crumbled and formed a soft mass having no palpably firm core, the time of disintegration was recorded. A Kodak 60-minute timer was used to time each test. The disintegration of each tablet was taken twice and an average computed.

The tablets used in this study were purchased from local retail drug stores and all samples seemed to be in good condition with no indications of excessive age or adverse storage conditions (Table 1, page 674).

Summary

The range of disintegration was found to be from 4 to 48 minutes. The average disintegration time for the coated tablets tested was found to be 19 minutes, with a standard deviation of almost 11 minutes. The *in vitro* disintegration time is actually shorter than was previously shown by Meneses and Huyck[8] when

(*Continued on page 674*)

Packaging and Selling

Mead Johnson & Company's New Container

for a number of products, here holds prenatal tablets. The bottle, shaped like an Erlenmeyer flask, was designed by Don Dailey & Associates, the lace collar by Armstrong Cork Company's Indiana glass plant, the white plastic screw cap bearing the company's trademark, by all three, and the label, which adds a scientific look to the feminity, by Keller-Crescent Company.

the nicest

things are

squeezed in

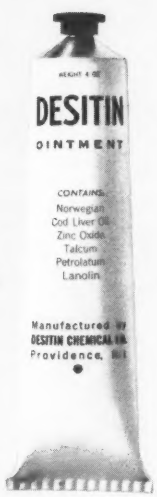
sheffield tubes!

sheffield tubes

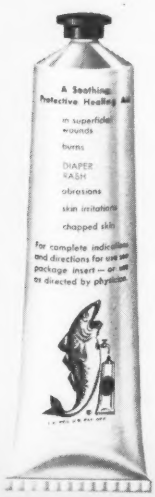
Desitin – the first thought in baby's skin problems – selects Sheffield Tubes, first since 1892 with the last word in collapsible metal tubes. For many products there is only one proper container. Hundreds of America's best selling products are selling better because they are properly contained in the modern, convenient safety of smart looking Sheffield Tubes. You pay no premium for Sheffield's vast experience and complete facilities for tube packaging. Without obligation, discuss all phases of your packaging problems with a packaging expert – the Sheffield man. The Sheffield Tube Corporation.

Home Office and Factory: New London, Connecticut.

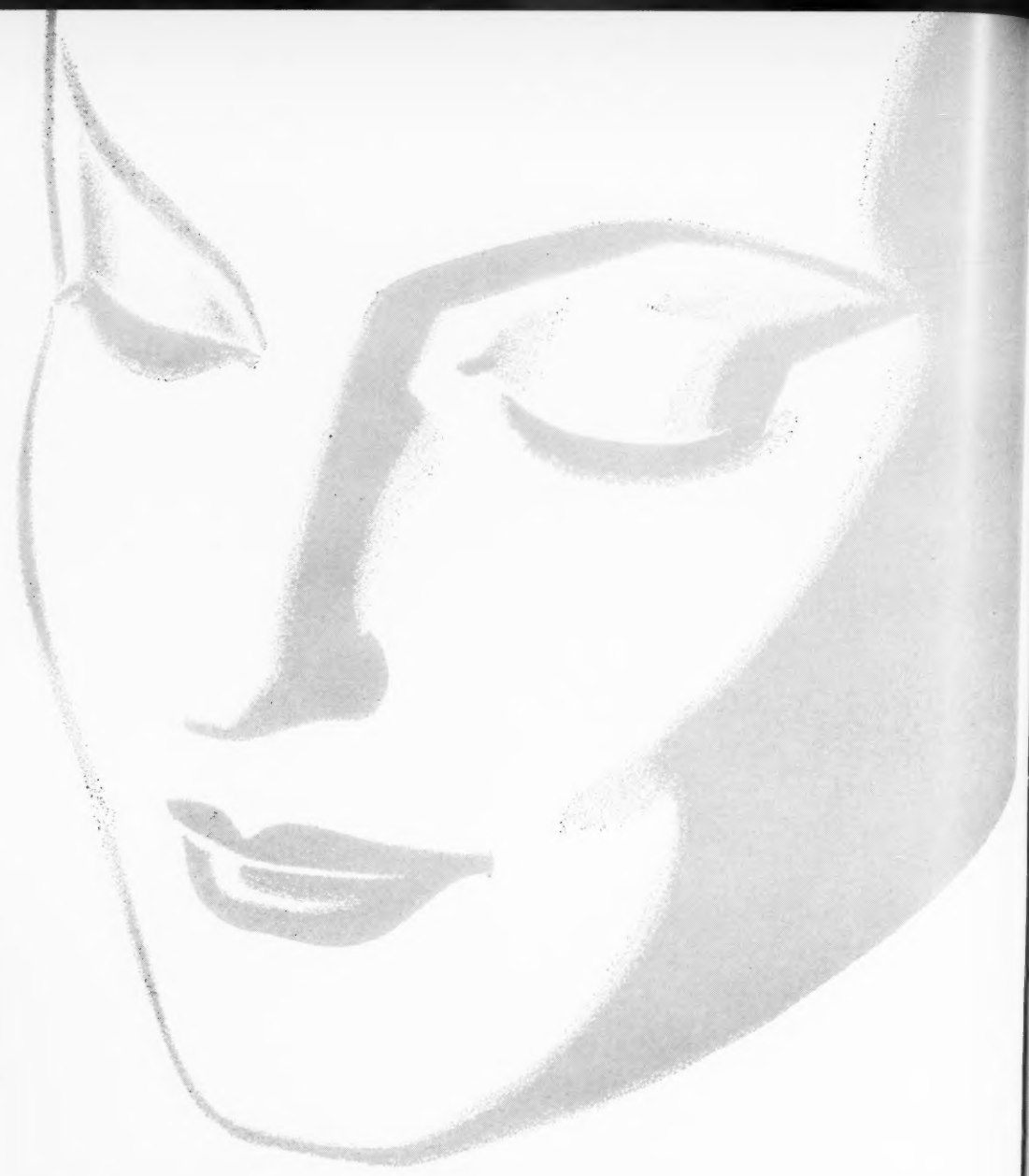
Sales Offices: New York, N.Y., Chicago, Ill., Los Angeles, Calif.

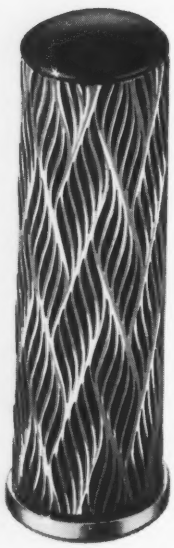


Only a metal tube can provide the safe preservation of volatile oils



Desitin contains: Norwegian Cod Liver Oil, Zinc Oxide, Talcum, Petrolatum, Lanolin





WIN HER WITH THE LOOK OF ELEGANCE

Lambert ENGRAVING

ADDS TO YOUR PRODUCT

Just as there is nothing quite like elegance to enhance your product's sales-appeal . . . there's no substitute for engraving and engine turning to achieve the *look* of elegance.

A refined gracefulness is *not* synonymous, however, with high cost — when you turn to Lambert for engine turning. Here in Attleboro, we have coupled the art of single tool craftsmanship with Lambert's exclusive *multitool* process, to give you *quality in quantity*.

Quality-in-Quantity engine turning makes elegance practical

If you would like us to ornament a sample — to demonstrate how Lambert design talent and engine turning can make your product elegant in all but cost — please write enclosing several shells. There is no cost or obligation.

Lambert Engraving Company, Inc.
Attleboro, Massachusetts

CONSUMER TESTING AND COMMON SENSE

BY B. A. LANCE

B. A. Lance is a pen name. The author has been concerned with the running, devising and interpretation of consumer and panel tests over a period of many years. He has no axe to grind. His present activities are in other fields. This article was written to balance a very one-sided public presentation.

One subject of the recent Seminar held by the Society of Cosmetic Chemists was consumer testing. Unfortunately all four panel members represented the same interest since all make their living from consumer research. Although the program listed a "moderator" there was nothing much to moderate, because no voice representing the buyers of consumer testing was heard. The stated question, "Does product testing make sense?" was not properly answered at the session. It seems highly worthwhile to explore it further.

A serious flaw in many consumer testing procedures is the fact that a blank sample or even a regular package submitted for evaluation is not the same thing as an item bought freely. It is only a facsimile, sometimes a reasonable one, sometimes not so reasonable. Even questioning a consumer about a product after she has bought it routinely will influence her attitude and opinions. So, right here are limitations of which the sponsor of consumer testing should be aware. The solicited response to a test item is not a precise projection of the normal reaction to a purchased product, but a more or less distorted projection.

The degree of discrepancy depends on how well the test is set up. Such discrepancies don't render consumer testing useless but, as there is no substitute for sampling, its built-in element of error must be faced.

Next, and foremost, it should be realized that consumer researchers are jumping from an unwarranted assumption to supposedly statistically significant conclusions. The unwarranted assumption is that all respondents tell the truth. This is surely not so.

Remember the Kinsey Report? Though interesting, its astounding revelations on sexual behavior can hardly be credited at face value. Of course, the good Hoosier Doctor could not prove that the subjects of his questionnaires told the truth. Nor can anyone prove how many lied.

Possibly the compulsion to lie is less strong with people who are asked opinions about foods and cosmetics. But lie they will. Why? There are lots of reasons. (Some were neatly illustrated by a panel member at the Seminar.) A few respondents may lie deliberately. For instance, a housewife may be annoyed by the visit of the interviewer. However, rather, than tell the intruder to get out and not to bother her, she 'punishes' the interviewer by expressing a more negative attitude about the product than her true judgement calls for. Or the opposite may happen. The respondent, in an effort to make herself agreeable and liked, may deliberately give a too favorable slant to her answers, in the belief that this pleases the interviewer.

More people are apt to distort their answers for less conscious reasons, subtler motivations, for instance, by giving the responses they think are expected. Or by following another persons's lead. Or by pretending they do, or like, something—for example use toothpaste twice a day—because this is the proper thing to do, whereas they actually follow a different practice. Many readers will be able to add comparable cases.

Thus the process of consumer testing starts with very impure raw material, and there is no way to tell the good from the bad or to know what percentage of the total is pure. This consideration, that the researchers harvest the chaff with the wheat and can't separate the two, has a bearing on the validity

(*Continued on page 646*)

FIRST... UNDER PRESSURE

Pressure packaging is pushing many different kinds of products to the top in today's tougher sales race . . . with the help of Crown. Crown made the first aerosol package . . . has produced more than any other manufacturer . . . is the only source of both seamless and fabricated aerosol containers. Crown research, experience and facilities are unexcelled in the aerosol packaging field. Let us show you how to put your product under pressure . . . profitably.

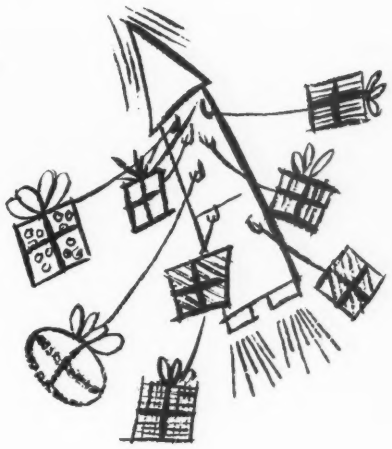
for cans · closures · crowns · machinery

CROWN

CROWN CORK & SEAL COMPANY, INC.
9300 Ashton Road, Philadelphia 36, Pa.

PHARMACEUTICAL PRODUCT MAILING*

BY L. H. ZAHN CIBA PHARMACEUTICAL PRODUCTS, INC.



Although I do not represent the pharmaceutical industry officially, I feel that members of that industry will concur with my statements here. Please bear in mind that they are made to create provocative thinking. It is in this vein that I brief you on the problems our industry has in developing carriers for its products.

We in the pharmaceutical industry depend almost wholly on the Postal Service for delivery of end products to the distribution points, or the drug stores, throughout the United States. We have two problems, the one just mentioned, the delivery of our finished goods, and the other, the problem of our "silent salesman," the pharmaceutical mailer. This pharmaceutical mailer usually carries one or more packages of our sample line of tablets, liquids or powders. Here we usually use fourth class service. Although the arrival of a sample like this should be handled as quickly as possible, overnight delivery is not a particularly important factor. The most important factor for our sample mailings is that the sample arrive in good condition. The outside of the box should not be defaced, because on it we are trying to carry an "impulse" message. If you think that the competition of cigarette advertising is repulsive on television, you should see a doctor's office some Monday morning at the beginning of the poison ivy or hayfever season when the hypertensives start their "worry" season—at Christmas, or before the income tax deadline. We depend upon our small 3″ x 4″ x 2″ mailer to make an impact on the doctor's nurse, or the doctor himself, so that the package is opened upon its arrival, hoping we can get our message across.

Now, when it comes to our regular trade package delivery of goods by the Parcel Post Service, we have two conditions that must be satisfied. One is the arrival of our products in good condition, and the other, of course, is speed! When we develop pharmaceutical packages for distribution, we must consider the possibility of the product freezing or melting en route to the drug store. In the case of suppositories, we try to have all stocks distributed throughout the country before June 30 each year and we try, if possible, to wait until October to start distribution again. I speak of bulk shipments only. Our individual shipments to drug stores from the warehouse are packed in dry ice during the months of July and August, if they cannot be delivered overnight. However, there is a definite trend toward the revision of the formula for suppositories, to eliminate the low-melting cocoa butter vehicle, which is the culprit.

In the case of liquids, we have the reverse problem, and that, of course, is the problem of freezing. Here again we try to regulate our bulk shipments, to fit them into the weather pattern. With both of these problems we are studying the insulating qualities of the recently introduced styrofoam substituted flute in corrugated cases. When either of these types of products are shipped, the carriers are notified that they should be stored in cool or warm places en route, depending upon the product, which creates a special problem over and above the breakage problem.

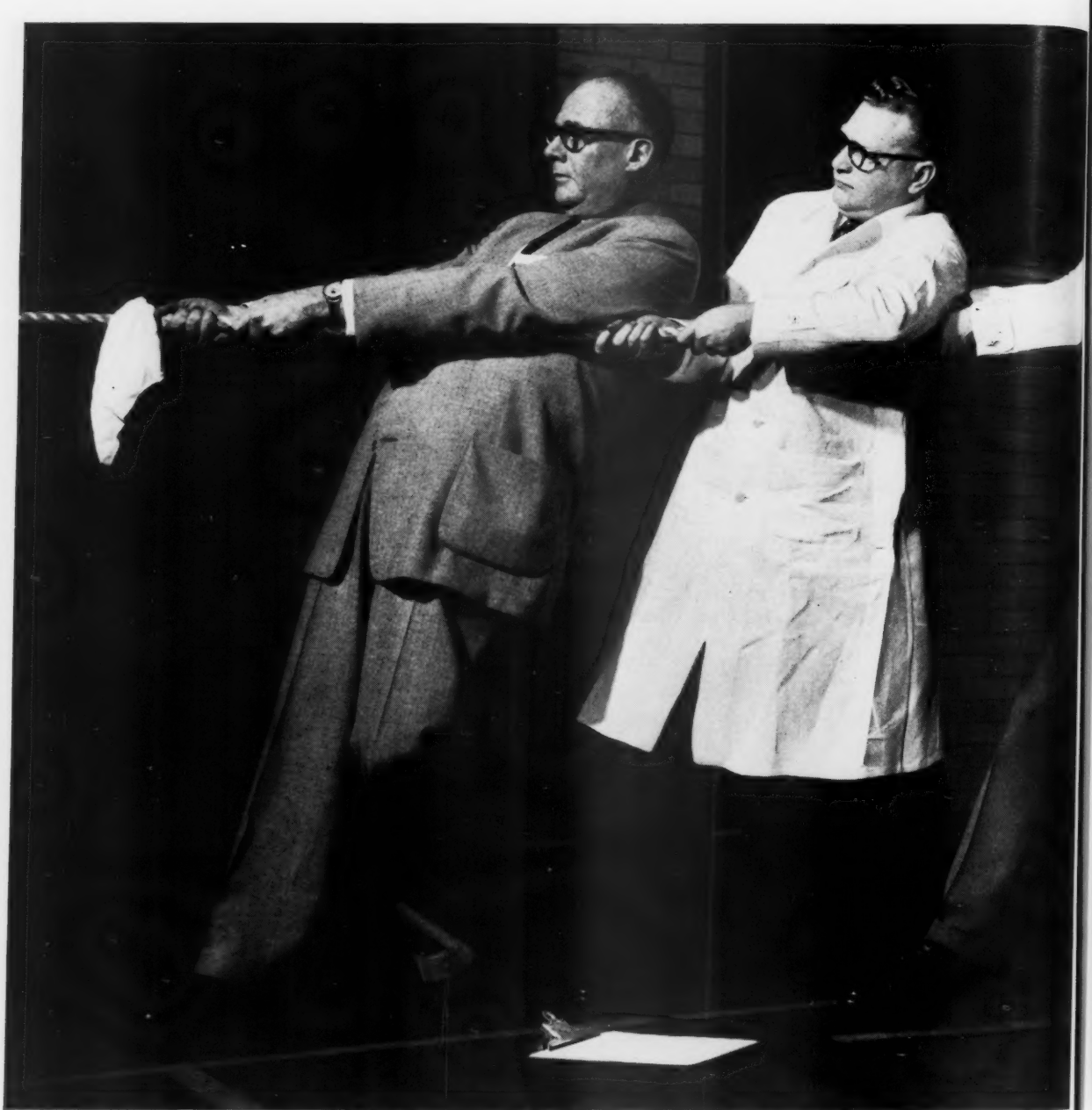
Going back to the pharmaceutical mailer, we have been extremely successful in cutting down breakage by placing the product to be shipped in a suspended platform rather than wrapping it in a kimpak type of material. This solution is not new, but is a "take" from the instrument industry.

We make it a practice to send out test mailings on newly developed pharmaceutical mailers, or trade package shippers. Some of our companies have test equipment in their package development laboratories, and where they do not have this equipment an outside service is used, such as container laboratories.

I am firmly convinced that in the not too distant future our industry will be substituting polyethylene containers for the currently used glass tablet, liquid and powder bottles. There are still many problems such as permanency to be overcome. On the assumption that polyethylene will do the same job as glass, there are many advantages of which I am sure you are fully aware. Its advantage of being light and unbreakable offers our industry a tremendous saving in transportation costs, which are rising rapidly. As far as I am concerned, this is one of the sleeping developments in our great packaging indus-

(*Continued on page 647*)

*Abstracted from remarks at a panel during the Fourth Annual Joint Military Industry Packaging & Handling Symposium, October, 1958, Washington, D. C.



A PACKAGING TEAM NEEDS

The package can determine the success of a product. And so important has the packaging factor become that more and more companies are making packaging decisions through *teamwork.* Specialists from various departments offer their know-how and experience. But to make a packaging team complete, it needs an outside viewpoint. It needs an Anchor Man.

The Anchor Man knows glass packaging. He's helped solve hundreds of tough packaging problems. Through this wide experience, he can help you solve yours, too.

He offers a complete line of Anchorglass® containers—amber, crystal and green—in all standard sizes and styles. The quality of these containers is safeguarded by hundreds of daily checks, tests

AN ANCHOR MAN!

and controls. You get the same high quality standards in the complete line of Anchor® metal and molded closures. And you get container-closure combinations that are best for you in every way.

Contact your Anchor Man. We know you'll want him on your team, too. Anchor Hocking Glass Corporation, Lancaster, Ohio. Branch offices in all principal cities.

ANCHOR HOCKING

Bottles and Closures

Convenient screw closure . . .
seals tightly, opens easily

Tip-proof design . . .
jars stack quickly, securely

Many designers' colors to choose from . . .

New Plastic Jar by Owens-Illinois

. . . has all the makings of a top-priced package!

HERE in O-I's new 4½-ounce Plastic Jar you have all the advantages your salespackage needs—color and eye-appeal . . . shelf advantages retailers like . . . user conveniences customers look for. It's a package you'd expect would be priced far higher!

Smartly designed—Plastic Jars stack easily, securely. Their screw closures seal tightly, open easily. And as for color or an eye-catching color combination—you can almost name it! For, in addition to clear plastic, jars are available in a wide variety of opaque and transparent colors. (Also available with domed-top cap.)

Find out more about O-I's new Plastic Jar. Your Owens-Illinois representative will be glad to show you samples. Telephone him, today!

OWENS-ILLINOIS PLASTICS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Packaging and Selling

A Chicago advertising agency has just completed a basic study of the place of advertising during a business recession.

The result: "Any firm which makes advertising aggressiveness a part of its marketing philosophy during and following a recession will feel the recession less, and recover from it more quickly, than its backward-looking competitors."

This study was made for two five-year periods—1947 through 1951 and 1952 through 1956. In each of these periods the middle year was a recession year which permitted a before and after picture.

It was noticed in both of these periods that as a recession year leveled off, the continuous advertisers enjoyed a big gain in sales, while the budget cutters lagged substantially behind in percentage gains.

Abbott Laboratories has a distinguished record of beautiful and effective packaging as well as beautiful and effective advertising. Both packaging and advertising have been a conspicuous factor in lending a vivid personality to this fine pharmaceutical company.

We like, particularly, one of their recent packages for a new product, the children's liquid multivitamin in an aerosol container. This easy and interesting way of filling the spoon with a children's dose is aided by the lemon candy-flavored formula.

A few weeks ago, on September 30th to be exact, the Vick Chemical Company finally and abruptly renounced its dream of a cosmetic empire. It was on this date that H. S. Richardson, Jr., president of the Vick Chemical Company, together with J. A. Straka, Chesebrough-Pond's president, jointly announced that all of the cosmetic interests of the Vick Chemical Company would be transferred to Chesebrough.

It was nearly 20 years ago that Vick first entered into plans for an active, diversification of its basically proprietary medicine manufacturing. Three cosmetic companies were acquired in relatively quick succession, that is Sofskin, Seaforth and then Matchabelli. At the time of the Vick purchase two of these companies were showing great potential and all three had what could be called, in the best tradition of this industry, a glamorous origin and background.

Sofskin was born in the quiet little city of Finley, Ohio just a few years before the Vick purchase. It was started by a man named Glesner who, at that time, was operating a small proprietary medicine company called the Glesner Company.

Just what took place and under what circumstances, nobody ever quite understood. It is a fact, however, that from this rather unusual and rather unpropitious environment from a purely cosmetic viewpoint, Sofskin hand cream, which Mr. Glesner had started in a small experimental way, boomed beyond the capacity of any analytical reasoning or trade history experience to explain. Starting from zero, this company reached a sale of $100,000 within a year and was brushing intimately against a million dollar annual sale at the end of three years. This was the volume at which Vick took over this new product with an apparent vast potential for further sales.

The next cosmetic purchase of the Vick Chemical Company was a youthful enterprise in the best tradition of Horatio Alger as well as in the glamour of this particular industry. Seaforth was a men's line that had just about everything in perfectly balanced proportion, including a superb element of timing.

The dapper human dynamo who made a vivid living personality out of Seaforth was a young advertising agency man in Minneapolis working primarily on a food account who suddenly hit on a creative idea in a totally unrelated field. This particular creative idea came at a time when men's toiletries yere just about to emerge from a long history of basic utility products sold directly to men in drug stores. Alfred D. McKelvy, together with John Hudson Moore of Sportsmen fame and William Nassour, the originator of Courtley, seemed to have been hit with the same idea in three different parts of the country at almost the same time.

These were the three men's lines that made possible the department store's first entry into the men's toiletry field and which supplied to the women of America a new and intriguing gift for men.

These three men's lines, including McKelvy's Seaforth, were primarily and basically gift items designed for the department store and each contained an appeal through package and theme that gave a woman a chance to express through a gift a particularly subtle compliment to a man.

Thus, Courtley, through its theme and package enabled a woman to tell a man subtly that he was, in her eyes, a model of the perfect gentleman. Sports-

men offered a woman the opportunity of telling a man that he was the mighty hunter and the great provider. Whereas Seaforth gave full expression to complete masculinity.

Alfred D. McKelvy entered this trade with a very limited number of dimes but with a great deal of energy and personality. Within a few months Seaforth was surging actively, and within a few years it was approaching the million dollar annual sales mark with an active and recognized position in the industry. When McKelvy sold to Vick, his business was rolling at approximately $800,000 a year with substantial and sustained momentum.

Prince Matchabelli came to this country from Georgia at just about the time that this country had a pretty comprehensive reputation for princes, dukes, counts, countesses and duchesses from this part of Europe. To say that Prince Matchabelli was a glamorous individual with a superb flair for showmanship would be to put it mildly. His first venture was a little antique and perfume shop; from there he graduated to his own perfume blending and from there to manufacturing in a small way. It was not long before the famous Matchabelli showmanship began to appear, because the Prince Matchabelli perfume company, a tiny enterprise at this time, emerged with a board of directors that in size and quality could easily have competed with U. S. Steel or the American Telephone Company. It was, in fact, a board of wealthy notables all eagerly associating themselves with the social glamour of perfume and royalty.

The Matchabelli glamour train steamed happily on until the untimely death of the Prince in 1935, at just about the time when the company was advancing to its last step in perfume progress, that is, a showroom on Fifth Avenue conforming to the best tradition of the perfume business, with a big elegant, extravagant display room designed by some of the most outstanding decorators.

Soon after that the Prince Matchabelli perfume company went through a rather unhappy interlude under the management of a leading costume jewelry operator and was finally sold in a considerably reduced state to the Vick Chemical Company.

Vick management took over these three highly diverse, highly individualistic and, in at least two cases, highly dynamic cosmetic enterprises, bringing them under one roof, one sales management and one general planning policy.

Perhaps, as an example that diversification does not always pay when it is a little too diversified, some of these enterprises did not do so well when they were operated under the formula that had been so supremely successful when applied to mass distribution of proprietary medicines.

It is reported by various authoritative trade sources that at the time of the sale these three companies together had a gross sale of only slightly under $6,500,000. This could be broken down again into approximate but very close figures giving Matchabelli $3,600,000, Seaforth slightly under $2,000,000 and Sofskin around $750,000.

However, trade sources say that the profit figure had not become so happy a one. Matchabelli is reported to have made a gross profit before taxes that was very near $400,000 with Seaforth losing approximately $200,000 and Sofskin losing approximately $100,000. This would give a profit picture for a business that runs at $6,500,000 of total sales of only $100,000.

Again quoting trade sources, manufacturing costs were running at about 48 per cent, advertising costs for Matchabelli at about 15.5 per cent and for Seaforth at about 12.5 per cent.

Although time alone will tell just where these once famous names will go, Mr. Straka has stated that Prince Matchabelli will continue to be sold on a selected distribution basis, that Seaforth will join "Vaseline" brand products in the men's toiletry field and that Sofskin will "line up with Pond's products."

The history of the last few years has either removed from this industry, or drastically dulled the luster of some of the great and famous names of American cosmetic history. It seems a pity, as well as something difficult to understand, that some of these brand names have completely disappeared or largely lost their personality when, just a short time ago, they were such vigorous and successful personalities. Chesebrough-Pond's, in taking over these three particular enterprises, will face a great many problems. Let's hope that in due course they will find it possible to continue at least one or two of these vivid personalities.

In this department in our last issue, we made a mistake. As Fiorello La Guardia once said when he was mayor of New York, "When I make a mistake, it's always a beaut."

This particular bloomer took place in our report on the new expansion of the California cosmetic company Cora Galenti Enterprises. We promoted Joe Gardiner of the public relations company, Gardiner, Ross & Holmes, who is handling the publicity and public relations for Cora Galenti, into the cosmetic business and into this particular cosmetic company as vice-president and general manager.

Of course, what we meant to write was that Eugene Coleman, Jr., who has been known all over the country in this industry for quite a few years as vice-president of Colonial Dames and prior to that as president of de Heriot, Inc., is the new acting head of Cora Galenti Enterprises.

Eugene Coleman has now resigned from Colonial Dames and has taken over as vice-president and general manager of Cora Galenti.

The Cora Galenti Clinic has been operating in Hollywood for about 20 years. This organization is now planning national and international expansion

Creations in color

...on metal

Inviting as these packages appear on the printed page, you must see them in-the-metal to appreciate their glowing beauty. Nothing can replace the good impression metal makes. Continental artists and craftsmen bring fresh eyes and rich experience to each decorating assignment. Let them create a package in color for you.

CONTINENTAL CAN COMPANY

Eastern Division: 100 E. 42nd St., New York 17
Central Division: 135 So. La Salle St., Chicago 3
Pacific Division: Russ Building, San Francisco 4
Canadian Division: 5595 Pare St., Montreal, Que.

more news about Ucon BRAND propellants ...coming your way soon

Here's what fillers and marketers of aerosol products will get with new UCON Propellants:

FIVE TOP-QUALITY GRADES, to meet aerosol product specifications for pressure, stability, safety, and dryness.

TECHNICALLY-TRAINED REPRESENTATIVES—who know aerosol markets—to help fillers and marketers choose the most efficient and profitable combinations of UCON Propellants for aerosol products. They will give practical advice and assistance on containers, valves, equipment . . . provide valuable technical and market data.

EXPERT TECHNICAL SERVICE to help fillers and marketers develop profitable new aerosol products, modernize and improve present ones.

ON-TIME DELIVERY of the quantity wanted, from a nation-wide network of distribution points.

GUARANTEED FULL WEIGHTS, because every CARBIDE tank car carrying UCON Propellants will be weighed individually, *at a standstill.* That means *full delivery* . . and protection against money losses!

Years of Experience Back The High Quality of UCON Propellants

. . . and the technical assistance that will be available to you. CARBIDE has long been active in the fields of emulsion technology, surface-coating technology, silicones, solvents, and the manufacture and handling of gases . . . all associated with the aerosol industry. Thus, UCON Propellants are a logical extension of CARBIDE's research and development programs.

For more information on UCON Propellants—products of America's newest fluorocarbons plant—write: UCON Propellants, Union Carbide Chemicals Company, 30 East 42nd Street, New York 17, N. Y. Call, write or wire us, today! Attention: Dept. B-11.

"Ucon" and "Union Carbide" are registered trade marks of Union Carbide Corporation.

Ucon BRAND propellants

UCON Propellants will be available in five grades

UCON Propellant 11 Trichloromonofluoromethane
UCON Propellant 12 Dichlorodifluoromethane
UCON Propellant 22 Monochlorodifluoromethane
UCON Propellant 113 Trichlorotrifluoroethane
UCON Propellant 114 Dichlorotetrafluoroethane

UNION CARBIDE CHEMICALS COMPANY *Division of Union Carbide Corporation*

of clinic operation with plans to open new clinics in Florida, Mexico City, Paris and Rome.

In addition, plans have already been made for marketing a number of selected Cora Galenti products in retail distribution in the United States in franchised outlets. These products have been packaged for selected retail distribution for this country.

How far will modern supermarkets be compelled to go in devoting space to non-foods in order to overcome the competitive shorter markup on foods?

There is an increasing feeling in some supermarket circles that they have a tiger by the tail in non-food expansion.

One supermarket operator described a southern food chain that has a larger soft goods volume than the combined volume of the five Penney stores in the same metropolitan area served.

A new store in the south was mentioned, which is building a total area of 50,000 square feet, of which 25,000 square feet will be devoted to non-foods with emphasis on ready-to-wear.

Moving in the opposite direction is an increasing interest in various parts of the country in "superettes," that is small, limited food supermarkets devoted only to fast-moving food items where the chief objective is to minimize the time required for food shopping.

It looks as if this so-called retail revolution is far from over.

A number of companies with dreams of great achievement have selected company names with such words as national, associated and affiliated.

That such words bring limitations to a company's name, is indicated by a remark by J. N. Cooke, president of Glenbrook Laboratories, when this company's name was used to replace Sterling Drug's National Brands Division.

According to Mr. Cooke, the term "national brands" is "too generic" for the purpose of achieving ready identification of a product by its name.

"If, for example, you tell a television audience, 'Here is a new product of Glenbrook Labs.,' it registers with the consumer more effectively than it would if you announced the item as a new National Brand." The term "national brand" is not clearly recognized as referring to a line of any one company, he added.

Several months ago when General Foods introduced Gourmet foods as a separate division, we commented with admiration on a statement made by the company's president in its annual report to stockholders giving the reason why this enormous mass marketer of packaged foods was interested in such a highly specialized prestige line of food products.

Among the points cited in this report as advantages which the Gourmet line would bring to this enormous company was the obvious one of adding prestige to the company image, and in this connection the president cited the Thunderbird of the Ford Motor Company, and Steuben Glass as part of the Corning Glass Company.

Because this line was beautifully packaged, because the products were excellent food selections and provided interesting gift opportunities, the Gourmet line was readily accepted by department and food specialty stores as the kind of product that fitted their particular retail environment and their particular store personality.

Now it seems that Gourmet has been too successful in these stores. As always happens, the pressure is on to spread distribution and to increase volume.

A recent report in the daily press states, "General Foods, which excluded supermarkets when it first introduced this Gourmet line a year ago, may now reverse its stand." The press report then goes on, "The company, yielding to what an official called 'pressure by supermarkets' will launch a test in Los Angeles supermarkets in October. The entire line will be offered to all Los Angeles-area supermarkets and at the same time will be dropped in department and specialty stores there. Prices will be the same as at present."

We do not say that a product in a supermarket store cannot have its own kind of prestige. We simply say that in the nature of things it is an entirely different kind of prestige from that which is created within the environment and the reputation of the leading fashion department stores of a community. We do not know just what has happened to the company image the president of General Foods has in his mind in citing Steuben Glassware.

Leading a dog's life today can be a very pleasant thing. According to the director of research for a leading dog food company, "Dogs are treated as members of the family. They get sick and old like humans, and they get medicine and hospitalization in the same manner."

As a matter of fact, dogs are a great deal more important for this industry than many realize.

With the constantly increasing attention of the pharmaceutical industry to animal ills, the part in veterinary medicine played by dogs is large and increasingly important.

In the same way, the cosmetic industry has some business as well as increasing opportunities. Good grooming for dogs, not only for show but in many homes, is providing some cosmetic business and is an interesting market to explore.

The dog population, at present, is rated at 25 million, which includes 113 recognized breeds. More than one-half billion dollars a year is said to be the cost of maintaining America's dogs.

According to Fairfax M. Cone, chairman of the executive committee of Foote, Cone & Belding, one of the leading advertising agencies, "Much of today's ad-

vertising is not very good."

Mr. Cone admits that advertising agencies play a part in producing this bad advertising, but the greatest blame should be placed squarely on the desk of the top executives at many companies who refuse to consider advertising plans and strategy at their inception, but only come in to review.

"In place of these top executives," said Mr. Cone recently, "are a horde of inexperienced and relatively low-paid junior executives, who suggest constant revisions in ad programs, until the final materials submitted to top management bear little or no resemblance to the originals."

These young company men often resent "driving Chevys while some ad company men may have Cadillacs. What they do not realize," said Mr. Cone, "is that many of them could not qualify to hold a top job with an agency."

Also, according to Mr. Cone, "There is too much of the hocus-pocus and so-called scientific approach. One test will be run for a new name, another test on the package and so on. I'm reminded of a comment made by one of our executives some years ago when extensive research was being done on a name for a new hair tonic. Our man said, 'I wonder how much research was done to find a fancy name like Fitch Hair Tonic.' "

The Buying Committee, a development in the supermarket field that is causing a great deal of discussion in food circles certainly has plenty of work to face.

A recent report stated that a committee of six men had to evaluate 53 new items in a meeting lasting two and one-half hours—an average of two and one-half minutes to appraise each new submitted product.

The Packaging Centre has just been established at 50 Poland Street, London, W.1. This will be a permanent exhibition and information bureau to help industry and commerce with packaging problems.

International in character, the centre welcomes exhibitors and visitors from overseas.

This fall will see a substantial increase in the number of aerosol packages used by fragrance manufacturers. It is becoming a generally accepted method of dispensing cologne and toilet water.

It is interesting, however, that aerosols are being added, not as a primary method of applying a fragrance, but as one of a number of assorted packages from which consumers are invited to take their choice.

The fragrance people have not yet promoted the aerosol package as a new and fundamental development in fragrance, rather than just another package. And yet, there is a possibility that it can add a new dimension to fragrance. This possibility exists because the aerosol brings a certain functional purpose into the industry that has not precisely existed before.

For instance, cologne has been used for a long time primarily as a substitute for perfume with all the seasonal variations of perfume. However, the aerosol, with its practical method of dispensing, could open a new use for cologne or substantially broaden certain uses, and perhaps give added sales volume to fragrance in seasons that are not too important today for this industry.

For example, we see the strong possibility that, as aerosol cologne begins to be promoted vigorously on its own merits, the late spring and summer use of cologne could be substantially increased.

The fragrance industry has always been unhappy with its unbalanced seasonal sales and its unusually high percentage of sales during the fall. Perhaps aerosol offers an opportunity for leveling some of these peaks and valleys in the sales chart.

Non-foods are said to contribute more than $8 billion in sales for the supermarket industry. And yet, according to an expert, proper merchandising at the point of sale is badly lacking.

According to this expert, "No amount of advertising, local or national, regardless of its quality or quantity, will overcome the need for supermarket merchandising at point of sale."

We have commented several times in this department that the cost of distribution is an increasingly important factor in inflation.

An excellent example supporting this opinion was recently announced in the annual series on Operating Results of Food Chains issued by the Harvard Bureau of Business Research.

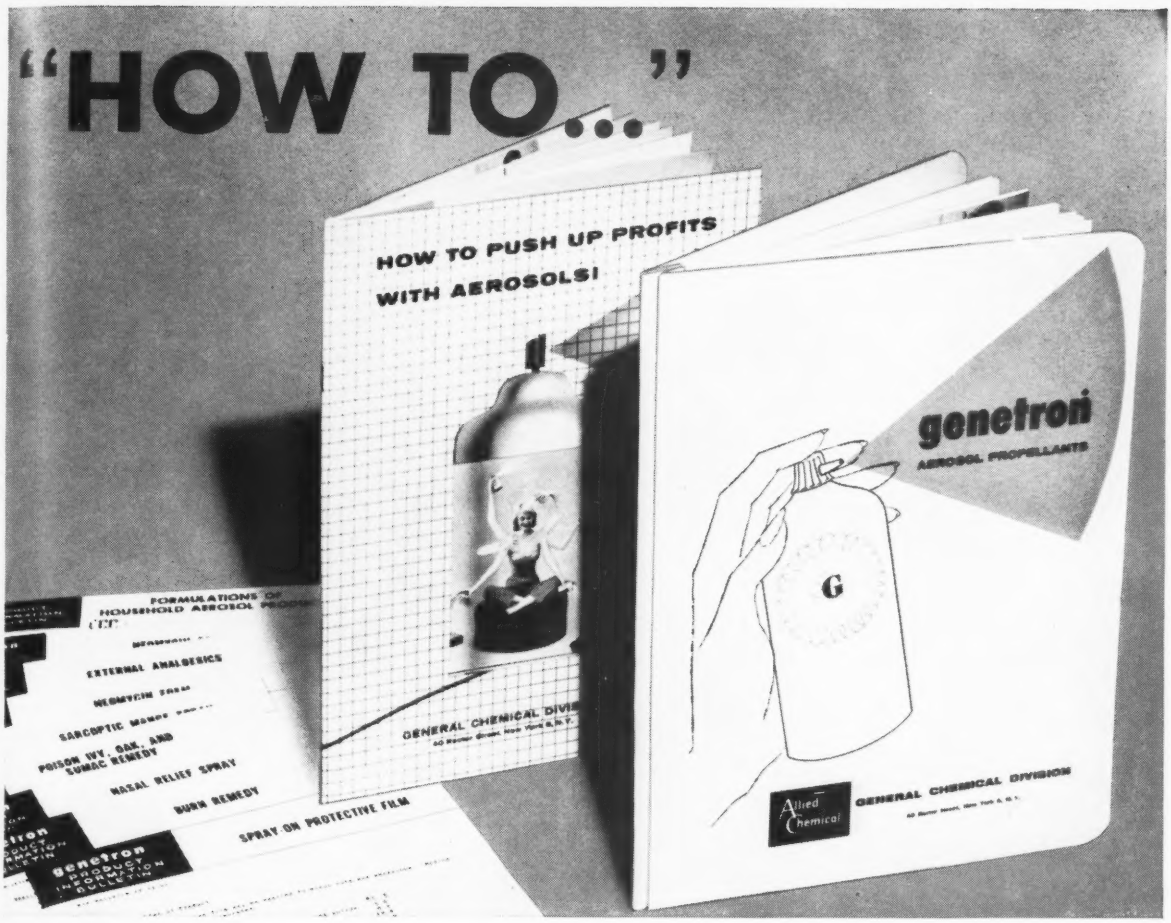
The gross margins of food chains in 1955 was 18.1 per cent; in 1956, 19.5 per cent; and in 1957 it rose to 20.4 per cent.

The Washington, D. C. court decision permitting grocery stores to sell aspirin is just one more trend indicating the way in which restrictive sales for over-the-counter drugs are breaking down.

In this decision the judge of the Municipal Court said, "Restricting aspirin sales to druggists affords no real protection to the public. It is common knowledge that clerks in pharmacies sell aspirin tablets without any real or immediate supervision by a licensed pharmacist."

In fighting to retain restrictive sales, there can be no doubt that the druggist has seriously weakened his moral position by moving over into open display and self-service.

The retail grocery field has found the health and beauty department more and more productive and profitable over the last ten years. As many drug manufacturers find that super-mass-medium television pays off, there will be an almost irresistible pressure for many over-the-counter medicines to break out of restrictive selling.



Free to aerosol marketers...helpful "how to" technical literature from General Chemical

☐ **Product Information Bulletins**

Describe promising new formulations and familiar tested ones for a variety of products studied or developed in our aerosol laboratory. Ask to be put on our mailing list.

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Contains valuable market and technical data... projections of potential sales in various markets, prepared by General Chemical's Market Survey Department . . . reliable sources for contract filling . . . basic information about aerosol packages . . . how aerosols work . . . outline of "Genetron" aerosol propellants.

☐ **GENETRON Aerosol Propellants**

A technical manual which includes extensive data on the physical properties of "Genetron" propellants and mixes, General Chemical technical service, commercial filling methods, list of dependable contract fillers, and other topics of interest to the aerosol manufacturer.

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There's nothing like a new hat

to pick up the spirit and add beauty to the wearer.

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News in Packaging . . .

Packaging Institute's 20th National Annual Forum Awards

The Packaging Institute's Corporate, Professional and Technical Operations Committee Awards announced at this year's twentieth annual National Packaging Forum in Chicago went respectively to Bristol-Myers, Charles A. Southwick, Jr., and James H. Parliman.

Bristol-Myers received the Corporate Award for an outstanding advance in applied packaging technology. The commercial packaging of the company's Ipana-Plus dentifrice in an interior-lined polyethylene container was cited.

Mr. Southwick, currently technical editor of *Modern Packaging* and a specialist in plastic packaging films, received the Professional Award for his many contributions to packaging technology, especially his Water Vapor Permeability test method.

The technical service manager of Plax Corporation, Mr. Parliman received the T.O.C. Award for his paper, "Lined Polyethylene Bottles," judged as the most informative paper of greatest importance to packaging technology presented at the October Forum.

New officers elected for the coming year are: Charles W. Kaufman, director research and development, National Dairy Products Corp., president; George Weissman, vice-president and director of marketing, Philip Morris Inc., a vice-president; Harold Mosedale, vice-president sales, Package Machinery Co., and L. H. Zahn, manager methods and package development, Ciba Pharmaceutical Products, Inc., re-elected vice-presidents. Two directors re-elected for three years are Frank W. Cray, Interchemical Corporation, and C. F. Schokmiller, Grove Laboratories. The four newly elected directors are John C. Clay, National Starch Products; C. Paul Bolton, Carnation Research Laboratories; Norman L. Esthus, Morton Salt Company; and Fred W. Langner, Socony Mobil Oil Company.

Lif-O-Gen, pure oxygen instantly available for emergencies such as gas poisoning, injury, electric shock, fainting, in a disposable push-button container holding ten minutes' continuous flow, by Lif-O-Gen, Inc., at $4.95 retail.

Flexible Packaging Awards

National Flexible Packaging Association winners in the third annual competition were recently displayed at the Packaging Institute's Forum in Chicago. Among the award winners of interest to this industry are: the heat-sealable aluminum foil overwrap for Dial soap by Armour & Company, supplied by Reynolds Metals Company, designed by Sidney Dickens; gold-printed cellophane overwrap for Duveen Soap Company, designed and produced by Printon Corporation; polyethylene tubing converted to bags and printed flexographically with color coding and partial design change to match product scent supplied to Allen B. Wrisley Company whose Don Wilson produced the design for company's Bubble Bath, by Cellu-Craft Products Corporation; and a three-dimensional gravure-printed saran facsimile of regular consumer package for sampling packages supplied to Park-Davis Company, who with Ivers-Lee produced the design, by Dobeckmun Company.

Hazel-Atlas Appoints Carnahan

Clyde M. Carnahan has been appointed manager of the Lancaster N. Y. plant of Hazel-Atlas Glass Division, Continental Can Co.

Pond's new shelf pack for Angel Skin hand lotion and Lanolized Talc, designed for self-service retail outlets. The circular holes directly aligned with the product closures enable quick, easy price-marking with no unpacking.

Anchor Hocking Moves Terre Haute Division Office

The Anchor-Hocking Glass Corporation has announced the removal of its Terre Haute, Indiana Container and Closure Division office to Indianapolis, where it has been consolidated with the corporation's Indianapolis Tableware Division office, in new quarters, Suite 102, 2214 North Meridian St., Indianapolis 8.; phone, WAlnut 4-6268.

Aerosol Expansion Predicted

Morris J. Root, technical director of G. Barr and Company, recently told the American Oil Chemists Society that the advent of nitrogen as an aerosol propellant would expand vastly the number of products suitable for aerosol dispensing, especially those using surface active agents for detergency, emulsification, wetting, conditioning and dispersing.

T.K.O. with Entrin, a new analgesic in a roll-on container, by Modern Products, Inc., Baltimore. Its principal active ingredient is readily absorbed through skin and tissue, said to be highly effective aginst pain. Price $1.50.

Fine quality, glass-stoppered perfume bottles.
Number 435 is made in ¼ oz., ½ oz. and 1 oz. sizes.
Number 352 is available in 7 sizes from ⅛ oz. to 8 oz.
Either bottle can be supplied plain or with fired-on ceramic labels.
GLASS STIMULATES SALES
PERFUME
435
Perfume
352
CARR-LOWREY GLASS CO.
Designers and manufacturers of fine glass containers
Factory and Main Office: BALTIMORE 3, MD. • New York Office: 415 MADISON AVE. • Chicago Office: 1572 MERCHANDISE MART

ADVERTISING NOTES

BY TED KLEIN, PUBLIC RELATIONS DIRECTOR*

Cost of Living

The U. S. Government Cost of Living Index has some interesting figures on what it is costing us to live this year as compared with 1938. Doctors' fees are up 84 per cent, hospital costs, 300 per cent, food is up 151 per cent, and men's clothing, 110 per cent. On the average, it costs us about $2.05 for something we would have paid a dollar for twenty years ago.

There is no question in most people's minds that a dollar spent for medical care is worth a great deal if it means the difference between staying out of work and getting back to earning a salary. However, when hospital costs go up three times plus, as compared to what the physician earns, something seems to be wrong. Is it that today's hospitals need better management or should doctors be encouraged to raise their fees to a level comparable to what the hospitals get?

Research in Jail

Convicts are an important part of several drug research projects under way at the University of Michigan. They are serving as paid volunteers at 25 cents per day, for studies conducted by psychologists, internists, and psychiatrists.

When I was in Ann Arbor recently, I had the opportunity to visit the State Prison of southern Michigan. It is reported to be the largest in the world—some 6,000 inmates live behind its walls. The prisoners make ideal subjects for many studies, since they are always accessible, will take the medication prescribed (a guard supervises the administration of drugs) and are eager to cooperate in a project that helps them feel they are repaying some debt to society. There is even some attempt being made to see whether parole boards will give time off a sentence if a convict participates in a medical research project. To date, tranquilizers, antihistamines and buffered aspirin are some of the drugs evaluated with the aid of prison subjects.

This Michigan jail is unique in many respects. For instance, the prisoners have a public relations committee that succeeds in getting a great deal of local, and even national, attention for the success of rehabilitation projects in the institution. Last year the prisoners gave over $2,500 to the March of Dimes—a per capita gift greater than the national average—and they have given as much as 1,476 pints of blood to the Red Cross in a single day.

Fact Book Available

One of the most informative publications to come out in a long time is *Facts about Pharmacy and Pharmaceuticals*, published by the Health News Institute, 60 East 42nd Street, New York 17. An unusual feature on the very first page is the statement "Material in this booklet may be reprinted without permission." Here is an invitation for writers, or anyone interested in facts and figures about the industry, to use accurate and up-to-date facts. According to the Institute, over 10,000 free copies have already been distributed to congressmen, science writers, and other influential individuals. Over 20,000 copies have been sold. In nine chapters, 137 pages, it covers fully subjects from how new drugs are found to how FDA laws are enforced. It is available to the public for $1.25, to members of the drug industry for 45 cents. Well worth the investment. A good public relations idea would be to distribute it to customers, employees and physicians, as a gift.

Serendipity

Walpole many years ago wrote a tale called "The Three Princes of Serendip" about travelers who were continually finding wondrous things completely by accident. He coined the word *serendipity* to describe this sort of discovery. Since then, men of science who have discovered important processes and chemicals have used the word to describe their good fortune. Notable examples of serendipity include Goodrich's discovery of the vulcanizing process and Fleming's discovery of penicillin. Neither scientist was looking for what he eventually found, but each recognized what he had stumbled on.

It seems to me that as science progresses and investigation becomes more and more refined, such fortuitous discoveries will become exceedingly rare. If Goodrich and Fleming had worked in one of today's completely controlled and air conditioned labs with their rigid experimental procedure, they might never have made their discoveries. And so, the question comes to mind, should science leave room for luck, and hope for serendipity? Just how to do this and still be scientific is a problem, but one can hope scientists will give it thought.

Young Man at Borden

Trained in English literature (Princeton '48), business administration (American University, Washington), with a Master's Degree from the Columbia University School of Business ('51), 31-year-old William Gordon, the son of a well-known Brooklyn obstetrician, is typical of today's executive in the pharmaceutical business.

As advertising manager of Borden's fast-growing Pharmaceutical Division, Bill is now in his third year with the company. He has worked in market research at General Electric and General Foods—training that he finds invaluable when tackling marketing problems in the ethical pharmaceutical field.

Bill feels that, while some consumer advertising techniques are applicable to pharmaceutical advertising, one striking difference is that pharmaceutical houses make use of bold and modern artistic concepts in their ads. His success with the recent Borden acquisition, Marcelle, has made competitors in hypoallergenic cosmetics take notice.

William Gordon, advertising manager of the Pharmaceutical Division, the Borden Co.

*Paul Klemtner & Company, Inc.

Patent thoughts and trends

BY THOMAS CIFELLI, JR., PATENT ATTORNEY*

TRADEMARKS

Their Use and Abuse

It is not believed necessary to make out a case for the importance of trademarks to firms in the drug and cosmetic industries. All that is necessary in this connection is to point out that some of the best known trademarks of all are those pertaining to drugs, cosmetics and perfumes.

For this reason, from time to time, we concern ourselves here with the subject of trademarks. One of the least appreciated aspects of trademarks is the fact that valuable rights in them may be lost through improper use, either by the trademark owner himself, or by others. It is rather astonishing to note the number of times that persons go to considerable thought and expense in order to select, popularize and register a trademark and then effectively undo most of the good by improperly using the mark. For this reason, it seems advisable to touch on some of the problems that should be considered in connection with the proper usage of trademarks.

Another topic to be dealt with involves an aspect of the selection of trademarks. It will be recalled that we gave detailed consideration to the selection of proper trademarks in the May 1958 issue of this magazine. One of the considerations that was not mentioned, because it was taken for granted, was the need to select a novel non-conflicting mark. This is just about as hard a job as coining a trademark that will have a "punch." Therefore, it would seem to be of interest to take a look at how the Patent Office has ruled on questions of this kind in recent months.

Proper Use of Trademarks

The information given in this section has been liberally taken from the book, Trademark Management, published by the U. S. Trademark Association. It may be well to point out, as was done in the book, that the information is for use as a *guide* by those having to do with trademarks. It is of course not intended nor appropriate as a substitute for a trademark attorney.

Basic Requirements: In the U.S.A. trademark rights are based on actual use; therefore, you must use the mark in connection with your goods. The Lanham Act indicates that the mark must be used as follows: the mark must be placed physically (1) on the product, or (2) on the container of the product, or (3) on point-of-sale displays closely associated with the product, or (4) on tags or labels attached to the product; and the product should be sold or transported in commerce.

Use in Advertising or General Literature: Whether your trademark has been registered or not you should select a standard form in which your mark is to appear and then you should not deviate from this form. Since infringers will doubtless not copy the exact form in which you use your mark it will make it more difficult for an infringer to argue that he is not infringing your trademark if he uses it in some modified form.

The three basic rules to be observed in using trademarks are: (1) spell your tradmark correctly at all times; (2) when using it in advertising copy capitalize at least the first letter of the trademark as you would a proper name; and (3) be certain that whenever you use your trademark you do not use it as a description of your product or as the basic word for referring to your product.

Loss of Trademark Rights: This comes about in three different ways, abandonment by the owner, or its improper use by the public or by the licensee.

Abandonment by the owner usually comes about as a result of the actual discontinuance of the use of a trademark or by the careless use of the mark. An example of the second way of losing a mark is the word "cellophane." The owner of the trademark did not intend to abandon it but unfortunately in advertising the owner used the word to describe the article on which it was used.

One of the prices of success is that the public very often has a tendency to use a well-known trademark as the generic name for the article. An example of this is the word "escalator" which was once a trademark, but is no longer because the public used the word for the moving stairway and not as a trademark to indicate a specific product of a specific manufacturer. The word "aspirin" is another example.

Finally, the improper use by a licensee can bring about the loss of trademark rights. If you license another to use your trademark you must see that the licensee maintains the quality of the product and properly represents its origin.

Notice of Trademark Ownership: If you have a registered trademark it is desirable to place a trademark notice near the mark at least once on each label, package or printed item referring to the mark. This is done in one of the following three ways: Registered in U. S. Patent Office; or Reg. U. S. Pat. Off., or ®.

For your protection it is advisable to use a registration notice when a registered trademark appears in any of the following media: newspapers, magazines, direct mail, all stationery, business forms (checks, invoices, order forms, acknowledgments, receipts, etc.), advertising signs, motion pictures and television commercials.

Use by Others: This falls into two categories: that in which trademark goods are sold by resellers and that in which a third party actually has a license to use the trademark.

The former is a potent source of trouble because resellers often feel free to use and unwittingly misuse a trademark, whereas a competitor fears a lawsuit if he encroaches upon your mark. The trademark owner should spare no effort to explain to his resellers that the proper use of the trademark is necessary for the benefit of both. It is advisable for the trademark owner to have the opportunity to examine and correct trademark usage in all promotions and advertising campaigns. In this connection the trademark owner

*Richards and Cifelli, Newark, N. J.

Elegance for a lovely lady

Your cosmetics help to make her lovely. To appeal to her they should be presented in elegant containers.

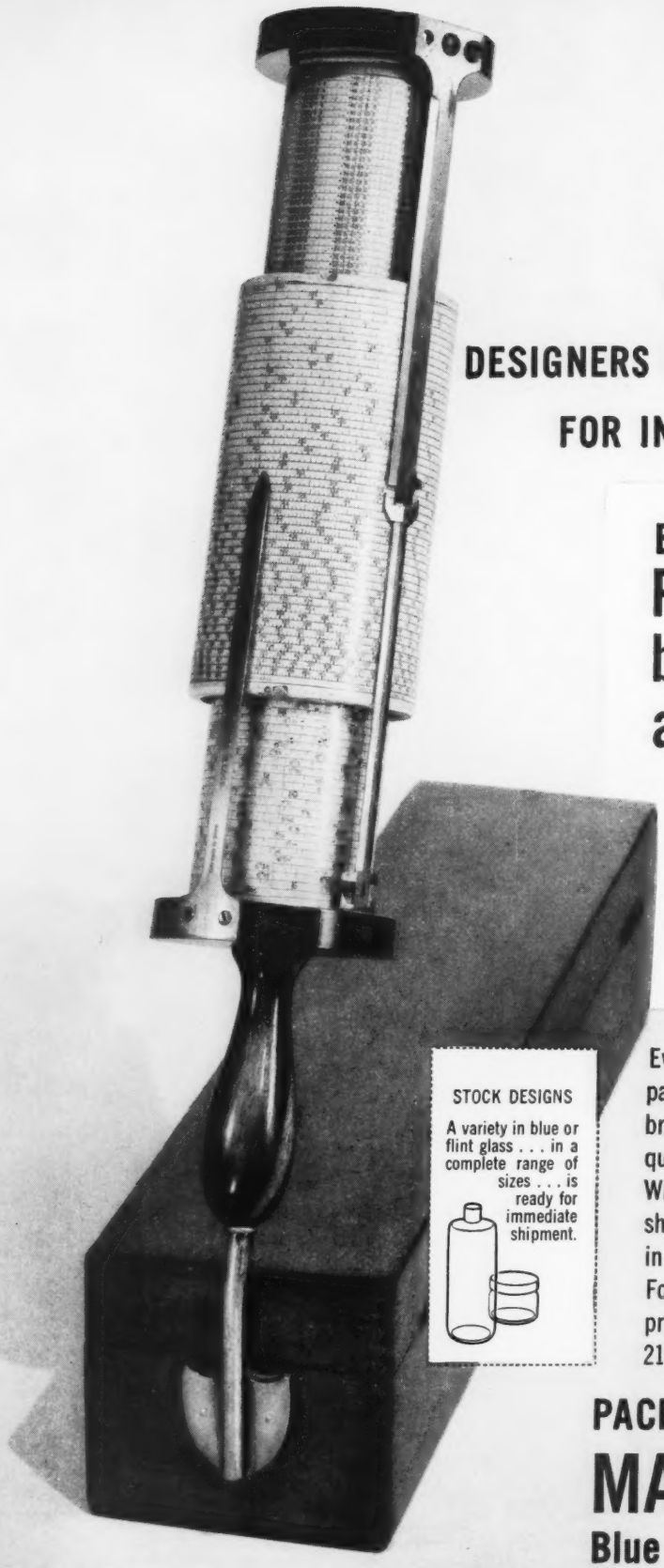
You may favor conventional or exotic shapes — in traditional gold or silver, polished to a jewelry finish . . . sunken or embossed designs . . . enamel coatings, stripes or patterns . . . engine turning or engraving.

Whatever your preference, Scovill can serve you to your complete satisfaction. By using our standard components, ornamented to your exclusive specifications, you can reduce fitting-up costs and speed delivery. Custom made cases can be created to your own designs or those of our art department.

Representatives qualified to discuss your cosmetic container problems may be reached in Scovill offices in these cities: New York—161 E. 42nd St., OXford 7-3222; Chicago—4105 W. Chicago Ave., NEvada 2-2303; Los Angeles—6464 E. Flotilla St., RAymond 3-7221.

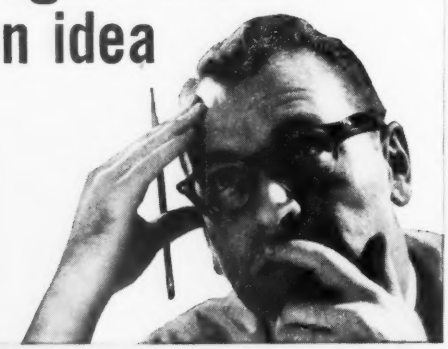
Scovill Manufacturing Company—Cosmetic Container Division—99 Mill Street, Waterbury, Connecticut

Cosmetic Containers by **SCOVILL**



MARYLAND GLASS
DESIGNERS USE THE FULLER CALCULATOR
FOR INTRICATE COMPUTATIONS . . .

BUT ESSENTIALLY
Package design begins with an idea



STOCK DESIGNS

A variety in blue or flint glass . . . in a complete range of sizes . . . is ready for immediate shipment.

Every craftsman knows his tools, but the creative package designer must do more—first he must bring an idea to life. An idea that says Yes to questions like: Is this container distinctive? Will it sell on the shelf? Does it pack properly, ship safely? Our design department specializes in designs that stop the eye . . . start the sale. For an affirmative solution to your design problems, contact Maryland Glass Corporation, 2147-53 Wicomico St., Baltimore 30, Md.

PACK TO ATTRACT IN
MARYLAND GLASS
Blue or Flint · Jars and Bottles

should supply an understandable style sheet explaining how the mark should be used. Explanatory pamphlets are also helpful, particularly if goods are sold by the manufacturer under a certain trademark and those particular goods are then used by the purchaser to make other items. An example is DuPont's polyester fiber sold under the trademark Dacron in the manufacture of shirts, dresses and sweaters. DuPont in such cases requests the user of the Dacron mark to point out that it is a trademark for DuPont's polyester fiber and to avoid using Dacron either as a possessive, or as a descriptive adjective to describe garments or fabrics made by other manufacturers and avoid coining another trademark from Dacron by combining it in whole or in part with any other words.

The use of a trademark by a licensee is a particularly troublesome situation and trademark counsel should always be obtained on licensing matters. The following provisions are contained in many licenses and give an idea of the type of arrangement r e q u i r e d between a trademark owner and his licensee.

(1) That the trademark owner shall have control over and actually supervise the nature and quality of products made by the licensee under the trademark. Often a trademark is regarded by the public as a guarantee of continuance of quality. If the trademark owner is not in a position to see that the quality is maintained, the value of his mark may be impaired.

(2) That the license is not transferable and that the licensee shall be responsible for all manufacture under the license.

(3) That the licensee will not use promotional materials or packages featuring the trademark without prior approval from licensor.

(4) That the licensee will not use promotional or packaging material for the trademark other than in accordance with the license and that at the expiration of the license he will return, destroy or transfer to another licensee all material bearing the trademark then in his hands.

(5) That the license can be cancelled if the licensee fails to observe its provisions.

(6) An agreement between licensor and licensee as to who is to police misuses or infringements of the mark by others and how responsibility for prosecution of such misuse and infringement shall be shared.

Likelihood of Confusion with Existing Trademarks

As was said earlier it is not enough to coin a trademark that satisfies you as an appropriate one for your purposes. It is also necessary that your mark should not run afoul of any existing marks, which of course are given priority. The actual determination of this question of conflict or likelihood of confusion is a very difficult one to resolve in many cases. One of the best ways of attempting to resolve it is to examine what has been done in previous cases and thereby attempt to draw a line. The general situation can be indicated by some recent holdings on this question. The information in question, compiled by Dr. W. J. Derenberg, was presented to the 1958 American Bar Association meeting in Los Angeles under the general subject "The Eleventh Year of Administration of the Lanham Trademark Act of 1946."

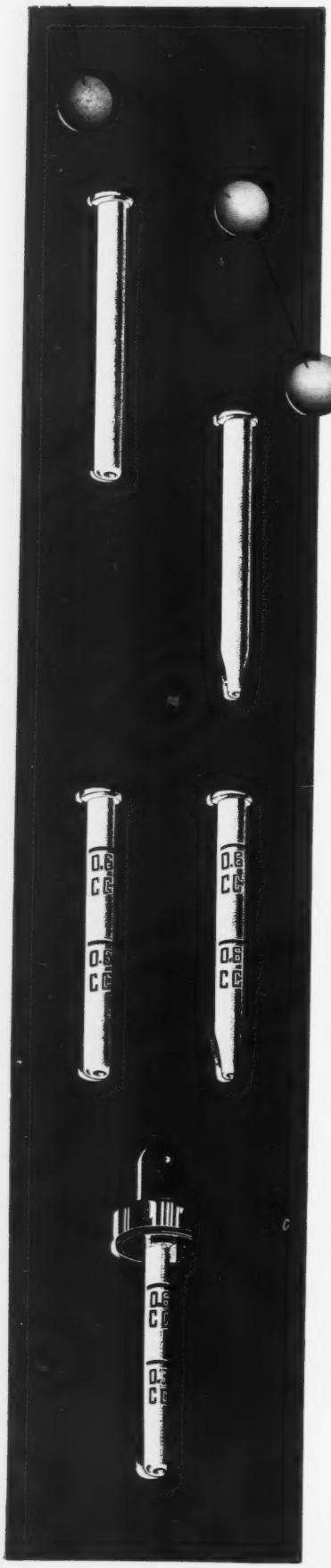
In order to understand the breakdown by Dr. Derenberg it is only necessary to remember that trademark oppositions in the Patent Office are first heard by the Examiner of Interferences, and appeals from rulings of this official are taken directly to the Commission of Patents.

Dr. Derenberg surveyed all of the decisions of the Commissioner of Patents in opposition proceedings involving the issue of likelihood of confusion during the period from July 1, 1957 to July 21, 1958. He found that there were 104 cases and that they presented the following picture:

(1) Oppositions dismissed by both the Examiner of Interferences and, upon appeal, by the Commissioner:

No confusion was found to be likely between National AA in a diamond-shaped emblem for an automobile publication and AAA in an ellipse for services rendered motorists; between the words Thrift-D-Lux and the phrases "Thrifty in Price—De Luxe in Quality" for dry cleaning and pressing services, and Lux for soap; between Dabond for synthetic fiber thread and Bond for men's and boys' clothing; between 3 Chefs with caricatures of three chefs for smoked and processed meats and Chef Breton for dehydrated food mixes and opposer's Chef Boy-AR-Dee for packaged Italian foods and Chef with a picture of a chef's head for canned fruits and vegetables, tea and coffee; between Elemin for mineral tablets sold over the counter and Emmenin for an estrogenic hormone sold only on prescription; between Palco for a chemical suede restorer and Palco for various lumber and millwork products and industrial chemicals; between Swirlaway for fur scarves and Swirl for women's textile aprons; between Remembrance for candles and Remembrance for advertising specialties sold to commercial operators who used them as gifts to promote the sale of products; between Chlor-Green for plant food and Calo-Clor, Calogreen and Auragreen for preparations to treat diseased grass; between a monogram consisting of the letters TP for transistors and the same letters on an illustration of a tepee for automotive, aircraft and electronic products; between Trisyamine for a medicinal compound for relief of hypertension and arthritis and Wyamine for a therapeutic inhalant and a preparation used in treating low blood pressure; between Ampcoflex for corrosion-resistant synthetic pipes and ducts and Lucoflex for plastic sheeting material; between Invisible Veil for pressed face powder and Invisible Beauty Strap for a vanishing cream; Glo-Ray for a hairdressing with lanolin and Glow for shampoo; Water Beauty for wrist watches and Waterbury for watches and clocks; Economatic for hot water tanks and range boilers and Oil-O-Matic or Gas-O-Matic for space heating and water heating apparatus; Living Cottons as a service mark for printing textile fabrics and making them crease-resistant and Living for girdles; Campana for paints and Campana for cosmetics and toilet preparations; Silver-Mist and Sky-Mist for women's outer wearing apparel and Scotch Mist for men's coats; Wizard for ash trays and Wizard for automotive supplies, household appliances and hardware; Fenesin for an antiarthritic preparation and Anacin for a pain relieving medicinal preparation; Svelt-Eez for ladies' hosiery and E-Z, Fit-EZ, E-Z-On, and Ez Up for undergarments;

(*Continued on page 676*)



Colonial

for

PRECISION ENGINEERED

Plastics

"Precision in plastics" is more than a mere sales expression at Colonial Applicator Company. It is a day-to-day reality made possible by unexcelled craftsmanship and the most rigid adherence to your specifications.

Stringent quality control insures top performing plastics. Each dropper and assembly is the best that man and machine can produce.

Let our technicians make free samples to your most exacting specifications. Contact a Colonial representative listed below or write to us directly.

Specialists in Glass or Plastic Droppers
and Assemblies for Nearly a Quarter of a Century

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OXford 7-0760

ALLEN J. GRETSCH
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Chicago 4, Ill.
WAbash 2-1619

HARRY M. GRABER
811 S. 53rd St.
Philadelphia 43, Pa.
GRanite 6-6311

GABLER & GABLER
435 S. LaCienega Blvd.
Los Angeles 48, Cal.
BRadshaw 2-2995

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102 Atlantic Ave.
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COLONIAL APPLICATOR CO.

VINELAND, NEW JERSEY

...glamour in glass!

...stock line thorobreds

Classic thorobreds in packaging, beautiful opal and flint H-A *Stock* Containers are elegant in appearance, economical to use. H-A Opal jars are straight, light—strong, white. They hide air-pockets, and are straight-sided for easy filling. And permanent "Deco-fired" labels can be economically applied at the time of manufacture. *Give your products a very special appeal*—**call or write H-A right now.**

HAZEL-ATLAS GLASS division of CONTINENTAL CAN COMPANY
WHEELING, WEST VIRGINIA

An Advance in Stability

GIVAUDAN'S MENTHANYL ACETATE!

Menthanyl Acetate, Givaudan's new perfume ester, is the latest contribution to the development of stable perfumes for soaps, detergents and cosmetics.

Coupled with its unusual stability, Menthanyl Acetate has a clean, refreshing odor with good strength and body which makes it an ideal aromatic for many popular types of perfumes. Practical to use, domestically produced Menthanyl Acetate is moderately priced and readily available.

Although Menthanyl Acetate lends itself well to the creation of many bouquets, its use in artificial bergamot, petitgrain, and lavender is specifically suggested by its resemblance to linalyl acetate.

Samples and our technical data sheet are available upon request.

GIVAUDAN

GIVAUDAN-DELAWANNA, INC.

321 West 44th Street
New York 36, N. Y.

NEWS...

Merrell Appointments

Dorsey E. Holtkamp, Ph.D., has joined The Wm. S. Merrell Company as head of the Department of Endocrinology, according to Dr. Harold W. Werner, vice-president and director of research. Dr. Holtkamp was formerly with Smith, Kline and French Laboratories.

The appointment of Donald G. Duncan as personnel manager of Merrell, a division of Vick, has also been announced by Frank N. Getman, president.

Mr. Duncan joined the Vick Chemical Company in 1950, later became personnel manager of Hess & Clark, another division.

American Cholesterol Appoints Export Sales Representative

American Cholesterol Products, Inc., manufacturers of sterol and lanolin derivatives, has announced the appointment of Whittaker, Clark & Daniels, Inc., New York City, as its export sales representative.

Whittaker, Clark & Daniels supplies basic materials for the cosmetic, toilet goods and pharmaceutical industries, employing agents the world over to handle sales inquiries and render technical assistance.

Schieffelin Appoints Manion

Eugene J. Manion has been appointed general manager of the Pharmaceutical Laboratories Division, Schieffelin & Company, according to William J. Schieffelin, vice-president.

EUGENE J. MANION

Mr. Manion held several executive positions with the firm prior to his serving as general sales manager with the Great Lakes Carbon Corporation from 1943 to 1958.

Mann Named Western Condensing's Assistant General Manager

Douglas L. Mann has been named assistant general manager at Western Condensing Company, division of Foremost Dairies, according to an announcement by

DOUGLAS L. MANN

Kenneth W. Ward, president and general manager of the firm.

He will continue in his present post as general sales manager along with his new responsibilities.

Mr. Mann formerly served in executive positions with Standard Brands and Congoleum-Nairn, Inc.

Dunney of Ungerer Back From Europe

William H. Dunney, Jr., director of the perfume laboratories and vice-president of Ungerer & Company, accompanied by Mrs. Dunney, has recently returned from a month's trip to Europe.

Mr. Dunney and his wife motored through the territories of Grasse, St. Simeon, Cannes, Nice and the French Alps. During his

WILLIAM H. DUNNEY

stay in Paris he spent considerable time with Mr. Rene Bernard, manager of the French office of Ungerer-Vidal Charvet, a U. S.-owned subsidiary of Ungerer.

Durrer Returns from Europe

E. R. Durrer, president of the Givaudan Corporation and its associate companies, Givaudan-Delawanna, Inc., Givaudan Flavors, Inc., and Sindar Corporation, has recently returned from an extended European trip during which he

E. R. DURRER

visited the Givaudan plants in Switzerland, France and England.

Mr. Durrer said that the recession experienced in the United States has had no disturbing repercussions in Europe, and that business abroad appears to have maintained a high level of activity.

Knapp Becomes Division Manager

William G. Knapp has been appointed division manager for Abbott Laboratories International Co., and Cornelius B. Evers has been named to succeed him as manager of the South Africa Division of Abbott Universal Ltd.

In his new assignment, Mr. Knapp succeeds B. A. Quinn, who becomes manager of the Abbott affiliate in Spain.

Headquarters for Mr. Knapp and Mr. Evers are in the Abbott export offices in Chicago.

Pfizer's McKeen Receives Greek Red Cross Award

John E. McKeen, president of Chas. Pfizer & Co., Inc., has been awarded the Golden Cross with laurel of the Greek Red Cross, highest honor the organization bestows upon distinguished persons, in token of admiration and gratitude for what Mr. McKeen and his company have done to protect humanity from various diseases and for Pfizer's help to the Greek Red Cross.

The award was presented to Mr. McKeen in Athens.

Extremely Pure, Free-Flowing, Economical

Baker NaOH and KOH PELLETS

Baker Sodium and Potassium Hydroxide Pellets are white, extremely pure, economical to buy and work with, and are available by the truckload, ton, or drum. Their size and half-spherical shape are designed for quick solubility and for smooth rapid flow without dust, sticking or interruption. Their extremely high purity helps you achieve more predictable, trouble-free processing, greater uniformity in your finished product with fewer rejections.

DOMESTIC MATERIAL, BY CARLOAD OR TON. J. T. Baker, America's largest manufacturer of Sodium Hydroxide and Potassium Hydroxide Pellets for industrial use, has again increased capacity to offer you the security of a steady *domestic* supply.

Baker NaOH and KOH Pellets are low in heavy metals, chloride, carbonate, sulfate, phosphate, nitrogen and silica. They are available in the 'Baker Analyzed' Reagent and U.S.P. grades; container sizes include 100 lb. and 25 lb. drums and 10 lb. cans.

May we quote you prices and send you samples?

SPECIAL FOR ELECTRONICS!

'Baker Analyzed' Sodium Hydroxide, Reagent Special Pellets, *low in carbonate.*

J. T. Baker Chemical Co.
Phillipsburg, New Jersey

J.T.Baker CHEMICAL

Crown Names Two

Mark T. Concannon has been named manager of closure sales for the Middle Atlantic Region of Crown Cork & Seal Company, Inc. The announcement was made by Robert J. Siebert, Middle Atlantic regional sales manager. Mr. Concannon, in this newly created position, will assist in the sales development of all products of the Closure Division, with headquarters in Philadelphia.

MARK T. CONCANNON

Affiliated with Canada Dry from 1933 to 1943, he later served as a manufacturer's representative, joining Crown in 1958 to work on special sales assignments within the beverage and brewing industries.

GEORGE P. O'BRIEN

Mr. Siebert has also announced the naming of George P. O'Brien as manager of can sales for the Middle Atlantic region.

Operating from Philadelphia headquarters, Mr. O'Brien, in this newly created position, will work with district sales managers and sales representatives in the sales development of all Crown's Can Division products.

Mr. O'Brien joined Crown as a sales representative in 1947, serving in several sales capacities, prior to his present position.

Roche Laboratories Changes

S. Evert Svenson, M.D., has been promoted to the position of director of medical services, according to V. D. Mattia, Jr., M.D., general manager of this division of Hoffmann-La Roche, Inc. Dr. Svenson has been director of medical information since 1957, and has served the firm since 1952.

Gerard G. Hunt, with Roche since 1950, has become assistant to the general manager of the division, and J. Campbell Howard, Jr., M.D., has been appointed director of professional services.

Dr. Mattia has also announced the promotion of Parke Richards, Jr., with the firm since 1933, to the position of director of sales operations, and of Clifford W. Betzer to that of assistant director of sales operations. Mr. Betzer joined the company in 1941.

Jaharis Promoted by Ames

Michael Jaharis, Jr., has been promoted to the position of assistant to the secretary of Ames Company, Inc., it has been announced by George W. Orr., company president. Mr. Jaharis was formerly professional service representative for Ames in Chicago.

Feinstone Joins Plough

Plough, Inc. has announced the appointment of W. Harry Feinstone as director of research and development.

Dr. Feinstone has formerly served with American Cyanamid Company's central research laboratories; as director of biological research for Nepera Chemical Company, as scientific director for the C. B. Kendall Company. He has also managed his own independent research laboratory in Indianapolis.

W. HARRY FEINSTONE

Duffy Made Division Manager

The appointment of Patrick R. Duffy as division manager of the Connecticut Wholesale Drug Division of Ketchum & Co., Inc., has been announced by Harold M. Altshul, president.

Mr. Duffy replaces Edward R. Aller, who will now devote full time to management of the Ketchum-Jersey Division.

Mr. Duffy has served Ketchum in various management capacities since 1954. In his new position, he will direct all operations of the Connecticut Wholesale Drug Division, which is headquartered in Waterbury, Conn.

Meer Opens New Warehouse

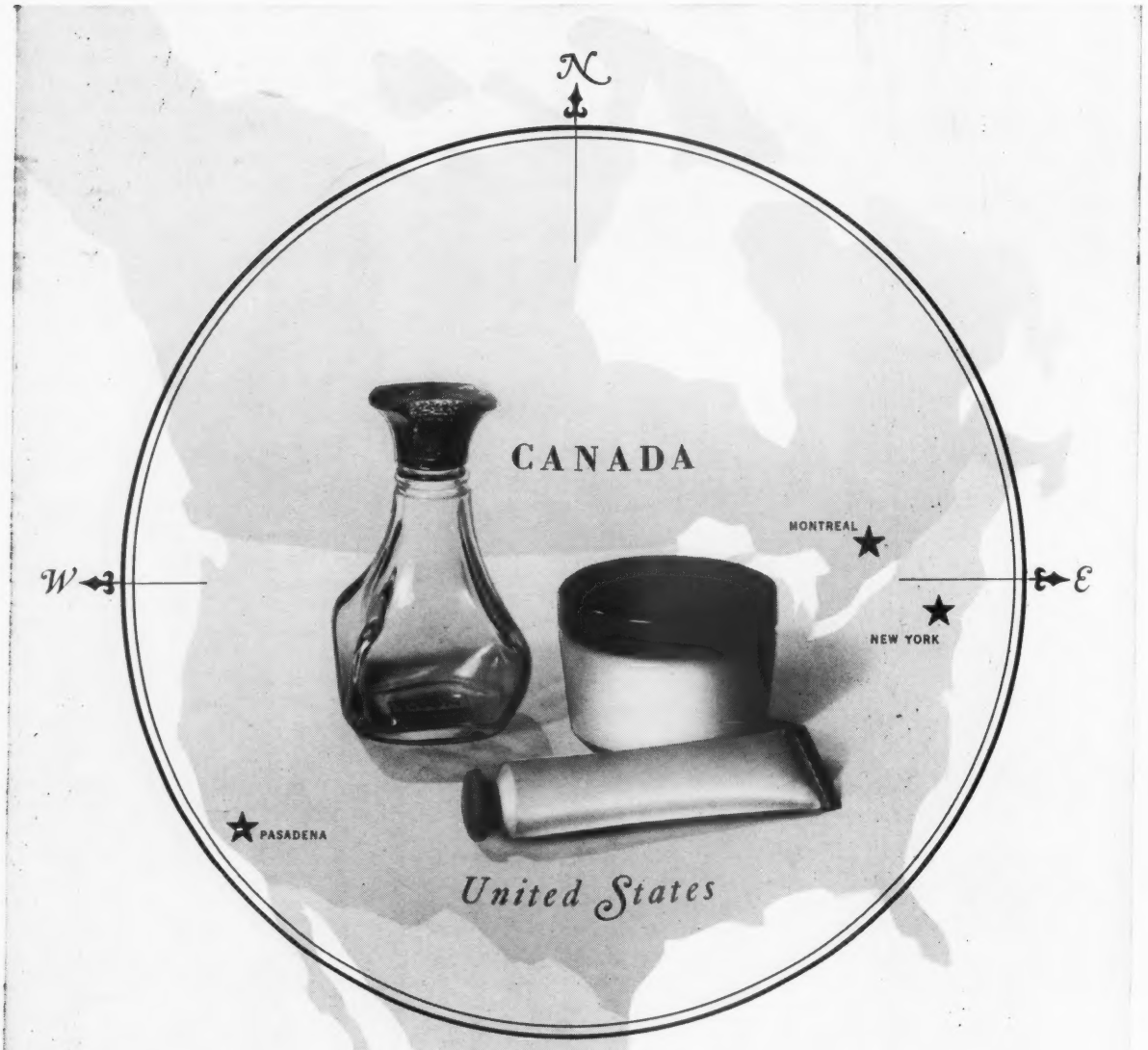
The Meer Corporation of New York has opened their new botanical drug and gum warehouse in Chicago, 325 West Huron Street. Meer Corporation's Chicago stock will include a complete line of water soluble gums, and most non-perishable drugs and extracts.

Klarmann Receives Award

Emil G. Klarmann, vice-president in charge of technical services for Lehn and Fink, Inc., is to receive the Achievement Award of the Chemical Specialties Manufacturers Association in December. Dr. Klarmann, whose field is biochemistry, is being honored for his work in the fields of disinfection and sanitation.

In his position at Lehn and Fink, he has been instrumental in the development of the non-toxic formula for Lysol Brand Disinfectant, of the professional disinfectants, Amphyl and O-syl, and of the company's Instrument Germicide for surgical purposes. His research activity also has led to the expansion of the Dorothy Gray and Tussy lines of cosmetics.

EMIL G. KLARMANN



FROM COAST TO COAST

Avon's Strategically Located Laboratories in the United States and Canada Provide Manufacture and Packaging for Famous Private Brands of Fine Cosmetics*

Your cosmetics and toiletries have the advantage of production near your best markets . . . East, West or Canada . . . when you have them prepared by Avon. You will find it economical to have your products produced at any one of these laboratories, or at all at the same time, assuring you a real saving in delivery time and cost.

Your Private Brands will be produced with strict adherence to the formulae you desire . . . and be packaged precisely as you wish. Avon's specialized knowledge and experience, developed over the past 70 years, are your assurance of quality in every phase of production.

Call or write Avon for complete information concerning the production of your own brands of toiletries and cosmetics.

AVON PRODUCTS INC.

PRIVATE BRAND DIVISION • 30 ROCKEFELLER PLAZA, NEW YORK

STRATEGICALLY LOCATED LABORATORIES IN SUFFERN, NEW YORK • MORTON GROVE, ILLINOIS • PASADENA, CALIFORNIA • AND MONTREAL, CANADA

Bristol's Science Promotions

Amel R. Menotti has been named scientific director of Bristol Labora-

AMEL R. MENOTTI

tories, Inc., according to Philip I. Bowman, president. Dr. Menotti, also a vice-president, will supervise the medical and research divisions, the latter of which will be headed by H. Leo Dickison, new director of laboratories.

Dr. Bowman has also announced the appointments of Dr. Joseph J.

H. LEO DICKISON

Lein as assistant director of laboratories and of Dr. Merle H. Pindell as director of pharmacologic research.

NARD President Honored

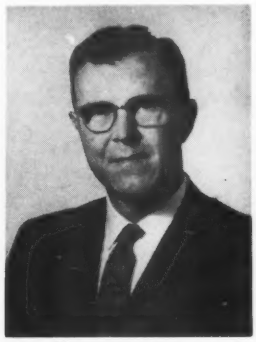
Angus H. Taylor, 1957-1958 president of the National Association of Retail Druggists, received the Squibb distinguished service award during the 60th annual meeting of the association, from W. L. Arscott, Squibb vice president, director of sales.

O'Hara Named Branch Manager

James M. O'Hara has been appointed Chicago branch manager of Merck Sharp & Dohme, division of Merck & Co., Inc., it has been announced by James J. Fee, branch operations director.

Maxwell Appointed by Alcon

The appointment of Earl Maxwell, M.D., Brig. Gen. U.S.A.F.



GEN. EARL MAXWELL, RTD.

(MC) Retired, to the newly created position of medical director for Alcon Laboratories, Inc. in Fort Worth, has been announced by W. C. Conner, president.

Toohy Elected by HNI

John J. Toohy, general manager, E. R. Squibb & Sons, Division of Olin-Mathieson Chemical Corporation, was elected a trustee of the Health News Institute at the Institute's recent semi-annual board meeting, according to Kenneth F. Valentine, president of Pitman-Moore Company and chairman of the board of HNI.

Lilly Names Albany Manager

New manager of Eli Lilly and Company's Albany District is Albert G. Mercuri, who has represented Lilly in New York for the last ten years. He succeeds Kenneth S. Griswold, who has retired.

Marketing Team Appointed

F. W. Blackburn, director of sales and advertising, S. E. Massengill Company, has announced the promotion of a newly created executive marketing team: W. N. Smith, consumer products manager; M. W. Pully, assistant to the director of sales and advertising; P. A. Sells, veterinary products manager; and M. J. Hardwick, professional products manager.

Abbott Moves New Orleans HQ

Abbott Laboratories has occupied a new distribution center and area sales headquarters at 916 Dakin Street, New Orleans, according to Herbert S. Wilkinson, vice-president and director of sales.

Ungerland Becomes Vice-President

The appointment of Joseph A. Ungerland as vice-president has

JOSEPH A. UNGERLAND

been announced by Polak & Schwarz, Inc. Mr. Ungerland has been with the organization for the past eighteen years, and has been active in the industry since 1933.

Migliarese Heads New Lab

The appointment of Dr. Joseph Migliarese as head of Colgate-Palm-

JOSEPH MIGLIARESE

olive Company's new Laboratory for Biological Research adjacent to Rutgers University, New Brunswick, New Jersey, has been announced by Dr. John R. Brown, Jr., vice-president, Research and Development. Dr. Migliarese, formerly on the Rutgers University staff, has been with Colgate for three years.

Knox Glass Opens Connecticut Plant

Connecticut Governor Abraham Ribicoff formally opened production facilities recently for a $4 million plant of Knox Glass Incorporated. Several hundred guests, including governmental and civic officials, were present for dedication of the 105,000-square-foot plant which occupies a 25-acre site at suburban Dayville.

YOUR TURN TO CALL THE TUNE

A turn to Orbis has brought lasting success to many a manufacturer. You, too, will find it pays never to skimp in any scents—always to rely on Orbis odors of great quality and uniform economy.

While you're playing for money, play for keeps. See if an Orbis odor doesn't satisfy your demand for good profits from good products.

For instance: Sample these scents today. Write on your letterhead and we'll send, too, the Orbis catalogue of fine products.

Series No. 300 Orbis Odors

Bouquet CH
Bouquet TB
Bouquet Kashmiri
Carnation
Chypre
Cologne
Divinia
Florida
Gardenia
Heliotrope
Honeysuckle
Jasmin
Jockey Club
Lavender
Lilac
Millefleurs
Muguet
Narcisse
New Mown Hay
Rose
Sweet Pea
Violet
Wistaria

Always at these low Orbis prices:

25 and 50 lb. cans ..... $3.00 per lb.
5 lb. bottles ..... 3.15 per lb.
Trial Pounds ..... 3.25 per lb.

Series No. 600 Orbis Odors

Bouquet CH
Bouquet de Oriente
Bouquet Kashmiri
Bouquet Parisienne
Bouquet TB
Carnation
Chypre
Cologne
Corylopsis
Crechene
Cuir de Russie
Divinia
Florida
Gardenia
Heliotrope
Honeysuckle
Jasmin
Jockey Club
Lavender
Lilac
Magnolia
Millefleurs
Muguet
Narcisse
Neroli
New Mown Hay
Oriental
Rose
Sweet Pea
Violet
Wistaria

Always at these low Orbis prices:

25 lb. cans and 50 lb. cans ..... $6.00 per lb.
5 lb. bottles ..... 6.15 per lb.
Trial Pounds ..... 6.25 per lb.

Other Orbis Products

Essential Oils
Perfume Bases
Fruit Flavors
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Cosmetic Raw Materials
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NEW YORK
WAtkins 4-7660

BANK ON ORBIS SCENTS AND SAVE DOLLARS

Cox New Wirz President

Robert F. Cox, vice-president in charge of production since 1954 for

ROBERT F. COX

A. H. Wirz, Inc., has succeeded Mark K. Dresden as president.

Carbide Reassigns Reps.

Four technical representatives have been transferred by Union Carbide Chemicals Company.

The transfers are: D. Wallace Enright from the Charlotte District to the Chicago District; Alan J. Lyon from the General Sales Office to the Charlotte District; Alan R. Mitchell from the New York District to the Philadelphia District, and Joseph L. Suhadolnik from the General Sales Office to the Newark District.

White Joins Colgate-Palmolive

The appointment of Kenneth White as product manager in the Toilet Articles Division of the Colgate-Palmolive Company has been announced by R. E. Hilbrant, vice-president and director of marketing.

Geigy Appoints Rosenbaum

Irwin M. Rosenbaum has been appointed technical sales representative for eastern Pennsylvania, Maryland, Delaware and the southeastern states for Geigy Industrial Chemicals.

25th Anniversary at Fritzsche

With 25 years of service behind him, another new member has just been admitted to Fritzsche Brothers' Quarter-of-a-Century Club, Harry Hoerning, shipping department.

Alva-Tranquil Corp. Formed

Alva-Tranquil Corporation is the new selling organization set up by Alva Laboratories, Inc., Chicago, to promote and distribute its proprietary and ethical items.

W. T. Strauss Chosen

Dr. William T. Strauss, formerly vice-president and medical director of Doherty, Clifford, Steers & Shenfield, Inc., has been elected vice-president and medical director of SchenLabs Pharmaceuticals, Inc., to succeed Dr. B. Marr Lanman.

Scovill's New President

Scovill Manufacturing Company has announced election of Selden T. Williams as president and general manager, to succeed William M. Goss, who has retired. Leavenworth P. Sperry has also retired. Mr. Williams was formerly president of A. Schrader's Son Div.

Vick Chemical Changes

Huger S. King, president of the Richardson Corporation, Greensboro, N. C., and former mayor of that city, has been elected to the board of directors of Vick Chemical Company, to succeed William Y. Preyer, retired from the board.

Management promotions at Vick include: Lunsford Richardson, Jr., member of the board and secretary of the executive personnel committee, to assume responsibility for central personnel services; J. G. Morrison, vice-president, Acquisition and Canadian Operations, Vicks Products Division, vice-president, Vick Products Division, in charge of Lavoris; and William P. Jeffery, Jr., director, central personnel services, vice-president, Vick Products Division, for Acquisition and Canadian Operations.

Wallerstein Acquires London Firm

Wallerstein Company, Inc., has acquired a British affiliate, Wheeler & Huisking, Ltd., of London, which imports crude oils, drugs and chemicals, and has acted as Wallerstein's agent for some years.

P. C. Magnus Honors E. H. Bobst

Elmer H. Bobst, chairman of the board, Warner-Lambert Pharmaceutical Company, was guest of honor at a luncheon at the Manhattan Club given by Percy C. Magnus, Magnus, Mabee & Reynard, Inc.

Carbide Moves Atlanta Office

The Atlanta District Office of Union Carbide Chemicals Co. has been moved to 1371 Peachtree Street, N. E. Atlanta.

Bakelite Alters Name

Bakelite Company, plastics division, Union Carbide Corp., has changed its name to Union Carbide Plastics Company.

Thomasson Opens Norristown Plant

Thomasson of Pa., Inc., has opened its new plant at Norristown, Pa. The facilities provide over 70,000 square feet of floor space.

Duffy Forms Company

James J. Duffy, formerly with T. M. Duche & Sons, has announced the formation of his own company to import raw materials, James J. Duffy Company, at 105 Hudson Street, N. Y. 13, phone, WA 5-4160.

Stokes Appointments

Victor N. Musmanno has been promoted to advertising manager

VICTOR N. MUSMANNO

of F. J. Stokes Corporation, succeeding Walter E. Rayher, who has resigned.

The company has also announced appointment of F. Theodor Hahn,

F. THEODOR HAHN

formerly a field sales engineer, to the position of manager of the Rochester sales office.

ROCHE*

WATER DISPERSIBLE DRY BEADLETS

DRY VITAMIN A PALMITATE—TYPE 250-S

DRY VITAMIN D_2—TYPE 500-S

FEATURES: Water-dispersible • Free-flowing • Prevent "off" flavor • Good stability to protect label claim • Quick dispersion with simple stirring.

USES: Fortifying dry food and pharmaceutical** products such as milk extenders, dry milk powders, dry pediatric products, puddings, dry cereals, mellorine, fruit drinks (certain types), beverage powders (**not recommended for tableting).

*Roche — Reg. U. S. Pat. Off.

Dry Vitamin A Palmitate Beadlets, Type 250-S, Water-Dispersible

Description

The type 'S' beadlet is a dry dispersion of vitamin A palmitate in a matrix of gelatin and carbohydrate in the form of light-yellow, free-flowing spherical granules having an irregular surface.

Dispersibility

In cold water, beverages, fruit drinks, milk and infant formulae, it disperses completely. The cloud of the dispersion remains uniform for relatively long periods.

Potency

As indicated by the designation '250', the type 'S' beadlet has a labeled potency of 250,000 units of vitamin A palmitate per gram.

Stability

Samples assayed after 6 months' room-temperature storage show vitamin A retention of 95% or more of the initial potency. Retention in food products is equally good.

Dry Vitamin D_2 Beadlets, Type 500-S, Water-Dispersible

Description

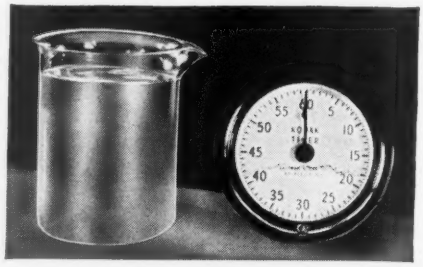
The physical form and dispersibility are identical to the type 'S' vitamin A palmitate beadlet. The dry D_2, type 500-S, is of pale-buff color. Type 'S' dry vitamin D_2 is not suitable for tableting. Potency retention in the type 'S' powder is about 95% or better when stored for 12 months at room temperature in dry locations.

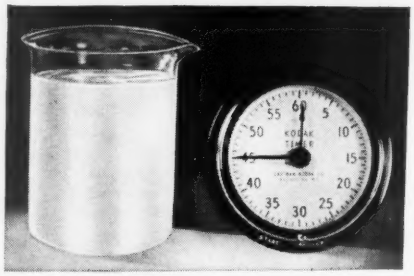
Uses

Dry vitamin A palmitate, type 250-S, water-dispersible beadlet, and dry vitamin D_2, type 500-S, water-dispersible beadlet, have been in commercial use for several years.

NOTE: Roche also manufactures and markets dry forms of its vitamin A acetate and vitamin D_2 for use in pharmaceutical products such as tablets and capsules.

ACTUAL DEMONSTRATION





Ask your Roche salesman for demonstration and sample kit and technical bulletin; or write to the Vitamin Division.

Pacific Coast distributor: L. H. Butcher Company, San Francisco—Los Angeles — Seattle — Portland — Salt Lake City

VITAMIN DIVISION
HOFFMANN-LA ROCHE INC.
Nutley 10, N. J. • NUtley 2-5000
In New York City: OXford 5-1400

In Canada: Hoffmann-La Roche Ltd., 1956 Bourdon Street, St. Laurent, Montreal 9, P. Q.

Pfizer Promotions and Appointments

William R. Sara and Ralph M. Gifford, chemical engineers, have joined the production staff of Chas. Pfizer & Co., Inc. Mr. Sara has been assigned to the analytical laboratories at Pfizer's main plant at Brooklyn, and Mr. Gifford, to chemical development work at the company's Groton plant.

Pao-Lo Yu has become statistician for the company's John L. Smith Memorial for Cancer Research.

Three appointments have been announced in Pfizer's pharmaceutical research and development department: Oscar R. Sumner as technical assistant to the manager of pharmaceutical research and development; Henry F. Hammer as a pharmaceutical research supervisor; and William W. Armstrong as a pharmaceutical research associate.

Pfizer has also promoted two at the Brooklyn plant. Anton G. Kettel, formerly manager of new products coordination, has been appointed assistant to the administrative vice-president. Arthur C. Von Oehsen has been moved up from assistant manager to succeed Mr. Kettel as manager of new products coordination.

Finally, the company's sales division has named an administrative aid and five regional sales representatives. Thomas V. Cartolano formerly with the market research department, has been appointed administrative assistant to J. Philip Smith, general manager of the Chemical Sales Division.

The new regional representatives of the Chemical Sales Division are: James M. Dugger, to cover Arizona, New Mexico, Los Angeles and southeastern California, with headquarters in Los Angeles; William B. Finn, from the Pittsburgh office, to cover parts of Virginia, West Virginia and Pennsylvania; Warren J. Peterson, from Kansas City headquarters, to cover Kansas and parts of Missouri and Colorado; Vincent J. Shanahan to cover northern Illinois with headquarters in Chicago; and H. Duke Williams, from Memphis, to cover Arkansas and parts of Tennessee, Mississippi and Alabama.

Bonnitt Named

Thomas L. Bonnitt has been appointed manager of market development at Morningstar-Paisley, Inc.

Commercial Solvents Staff Changes

Appointment to the staff of the Industrial Chemicals Department of Commercial Solvents Corporation have been announced by James V. O'Leary, general sales manager of the company.

William T. Skelly, a sales representative attached to the Cleveland district office since 1954, has been transferred to the New York district office. Replacing Mr. Skelly is Russell T. Smith.

RUSSELL T. SMITH

Michael T. O'Connor, formerly with Anderson Pritchard Oil Company, has been assigned to the Chicago district office.

New Storage Facilities

Commercial Solvents Corporation has announced the opening of bulk storage facilities for 2-Nitropropane at Newark, New Jersey and Los Angeles, California.

Geary Joins UCON

Daniel C. Geary has been appointed to the Aerosol Technical Service Laboratory for UCON propellants for research and development work on aerosol pressure packaging, according to an announcement from Union Carbide Chemicals Company, Division of Union Carbide Corporation.

DANIEL C. GEARY

Mead Johnson Promotions

Mead Johnson & Company's director of chemical research, Thomas C. Fleming, has been promoted to the new position of director of product development in the Research Division, according to Dr. Ben King Harned, vice-president for research, who also announced that James M. Tuholski and George W. Brown have assumed new responsibilities in the company's clinical research development.

McNeil Names Blazey

Leland W. Blazey has been named director of the newly created Engineering Division at McNeil Laboratories, Inc., according to Robert L. McNeil, Jr., chairman of the board.

Shepherd Elected a Director

Election of H. R. Shepherd, president of Aerosol Techniques, Inc. of Bridgeport, to the board of directors of Midland Aerosols, Ltd., of Wolverhampton, England, has been announced by F. Philip Webster, managing director of the British firm.

Crown Sells Equipment

Thomas E. Millsop, president, National Steel Corporation, and John F. Connelly, president and board chairman, Crown Cork and Seal Company, Inc., have announced jointly the purchase of Crown's cold reducing mill by National's Weirton Steel Division.

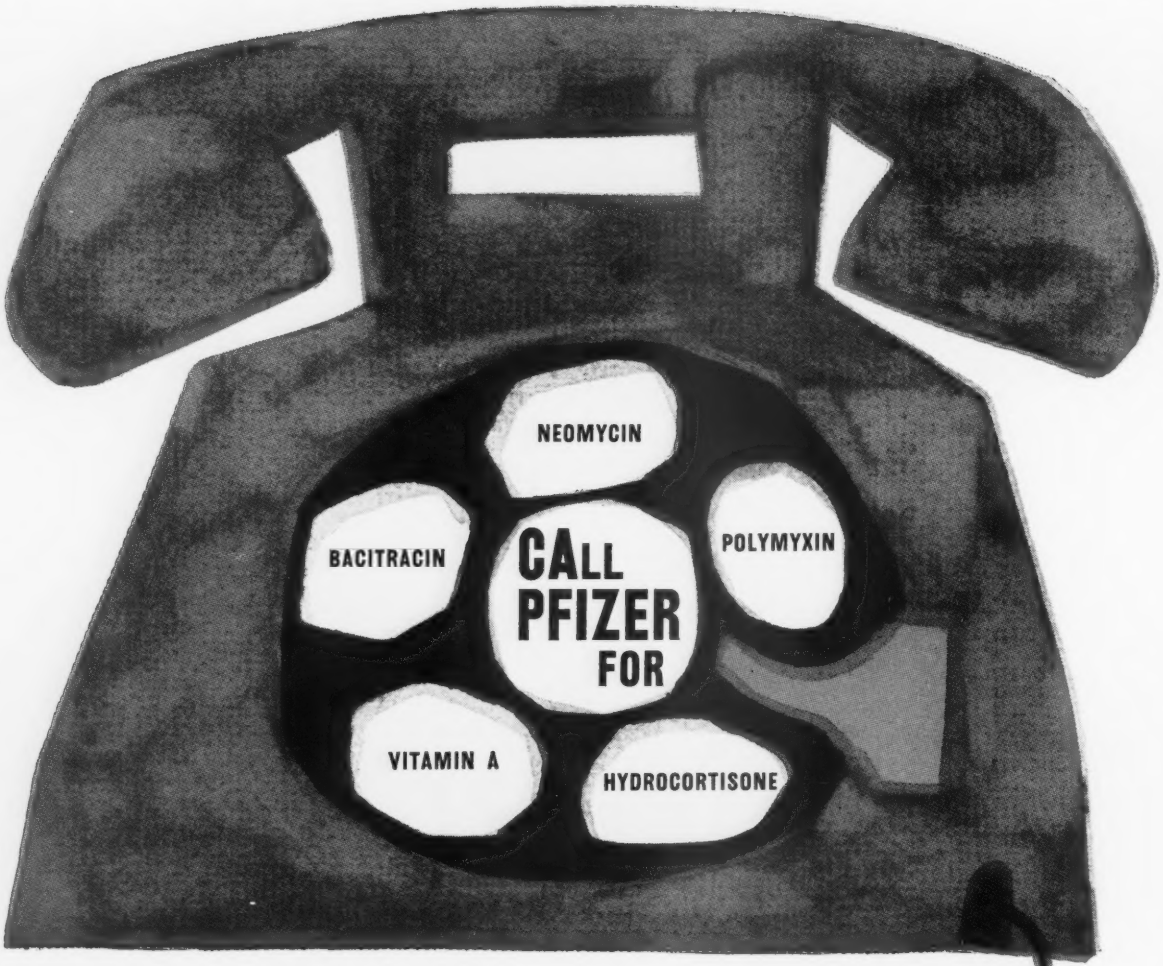
Barker Appointed by Continental Can

Stephen M. Barker has been appointed manager of market development for Continental Can Company, according to Raymond G. Fisher, vice president, marketing.

STEPHEN M. BARKER

Mr. Barker has had 10 years of experience in the development and merchandising of new products.

(*Continued on page 637*)



MEDICINALS FOR TOPICAL PREPARATIONS

IF YOU ARE DEVELOPING new or improved topical products, Pfizer can help you with up-to-date information and convenient forms of these important materials:

BACITRACIN, POLYMYXIN, NEOMYCIN... three antibiotics that are virtually unabsorbed through the skin, that have a low allergenic index and a low sensitizing potential...qualities that make them ideal for topical products. In addition, tests indicate that they are not prone to induce development of resistant bacterial strains.

HYDROCORTISONE...has proved its safety and effectiveness as a potent anti-inflammatory agent at the tissue level.

VITAMIN A...Pfizer Vitamin A Palmitate helps reduce scaliness and roughness in skin conditions—accelerates wound healing—is particularly effective in burn preparations. **WHEN YOU ORDER** your medicinals from Pfizer, you can count on product counsel and latest application data from Pfizer Technical Service. Moreover, Pfizer's network of warehouses means that your order is filled fast—wherever you are. **CALL** your Pfizer salesman today.

Pfizer

Manufacturing Chemists for Over 100 Years

CHAS. PFIZER & CO., INC.
CHEMICAL SALES DIVISION
630 FLUSHING AVE., BROOKLYN 6, N.Y.
BRANCH OFFICES: CHICAGO, ILL.; SAN FRANCISCO, CALIF.; VERNON, CALIF.; ATLANTA, GA.; DALLAS, TEXAS

One of two structures purchased by Kolar Laboratories in Chicago for manufacture of private brand cosmetics. The two buildings provide a total of 137,000 square feet of floor space.

Atlas Powder Appointments

The appointment of Dr. Frederick M. Robbins and Herbert L. Jones, Jr., as senior chemists in the product development department of Atlas Powder Company's Chemicals Division has been announced by department director F. Faxon Ogden.

Dr. Robbins is assigned to the Polyester Laboratory, and Mr. Jones to the company's Darco Activated Carbons Laboratory.

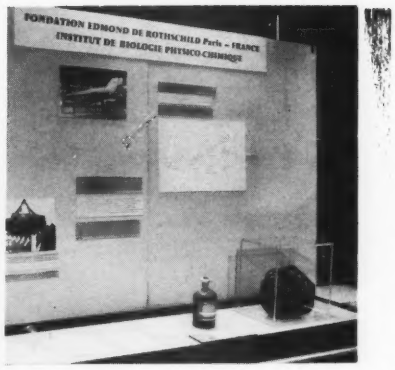
E. J. Massaglia, vice-president and general manager of the company's chemicals division has announced that Ralph B. Morton has been named Cincinnati area salesman for the chemicals sales department.

New Aerosol Marketing Division

A newly formed Aerosol Marketing Division headed by Etta W. Breger has been established by Adrian-Daniels Inc., of New York City. The division is to service aerosol manufacturers and aerosol marketers in all operational phases, and is especially geared to fill the need of the smaller manufacturer.

New Headquarters for Givaudan-Delawanna

Givaudan - Delawanna, Inc. has moved into new headquarters at 321 W. 44th Street, New York City. The new executive offices and technical service laboratories take up two floors of the building, providing, besides the executive offices, a cosmetic research laboratory, an aerosol laboratory, a perfume laboratory, a flavor laboratory and an instrumentation section for the use of all laboratory personnel, containing ultraviolet light apparatus, ovens, pH meters, and other equipment.



Display at Brussels World Pavilion of Science: research of E. Lederer, a director of CNRS, Paris, and collaborator of Firmenich & Co., Geneva; Firmenich's Grisambrol and piece of amber.

R. Salomon Honored

Richard Salomon, president of Charles of the Ritz, was honored for his leadership in the Federation of Jewish Philanthropies and other communal causes at the annual cosmetic and drug industry dinner for Federation at a dinner highlighting the trade effort for the network of 116 health and welfare agencies in New York, on November 5 at the Sheraton-East Hotel, New York City.

Grisambrol Displayed at Brussels

The work carried out on ambergris, in particular the determination of ambreine the constitution of, by Prof. E. Lederer, director, Physico-Chemical Biology Section of the National Center of Scientific Research (CNRS), Paris, and scientific collaborator of Firmenich & Co., Geneva, was displayed at the Brussels Universal Exhibition 1958, in the World Pavilion of Science.

The stand of the Edmond de Rothschild Foundation exhibited Professor Lederer's research work accompanied by a piece of amber made available by the Etablissements Hasslauer, Paris, and a bottle of Grisambrol bearing the Firmenich label.

Ruston Named to Factor Staff

Charles R. Ruston has been appointed to the national marketing committee staff of Max Factor & Co., according to an announcement by Alfred Firestein, director of marketing.

Mr. Ruston was formerly vice-president in charge of sales for the Revlon Company.

View of new Givaudan-Delawanna technical service laboratories: above, left, a perfumer uses an organ of approved odor samples to compare an essential oil sample with Givaudan standard; above right, a cosmetic chemist grinds colors in roller mill before incorporating into finished makeup; below, left, customer's laboratory for performance evaluaton of perfume materials in soap, detergents; right, a perfumer-chemist charges aerosol container with nitrogen propellant.

Planning the first alumni dinner of the Drug, Chemical & Allied Trades Section of the N. Y. Board of Trade (left to right): William J. Quinn of Merck & Co., DCAT counsel; William W. Huisking of Chas. L. Huisking & Co., vice-chairman; Helen L. Booth, Secretary; Sydney N. Stokes of van Ameringen-Haebler, vice-chairman of the dinner committee; Ralph A. Clark of J. T. Baker Chemical Co., chairman; and James Day of The Dow Chemical Co., treasurer.

DCAT Alumni Dinner

Ninety-one former directors of the Drug, Chemical and Allied Trades Section of the New York Board of Trade, whose terms date back to 1915, are to be honored at an alumni dinner November 19, at the Waldorf-Astoria, New York City.

Lloyd I. Volckening, Ivers-Lee Company, is chairman of the dinner committee and Sydney N. Stokes, van Ameringen-Haebler, Inc., is vice-chairman.

Furlager Returns from Russia

L. I. Furlager has just returned from a most unusual trip deep within Russia. From Copenhagen, he traveled via Helsinki to Leningrad, leaving Russia at Kiev for Vienna, Brussels, and finally London.

Muscular Dystrophy Assn. Names Lachman Chairman

Charles R. Lachman, senior vice-president of Revlon, Inc. has been named chairman for the second year, of the Cosmetics Division of Muscular Dystrophy Associations of America, Inc., according to Dr. Grayson Kirk, president of Columbia University, general chairman of MDAA's 1958 appeal.

Merck Discontinues Knoll Products Distribution

Merck & Co., Inc. will discontinue distribution of Knoll products as of November 15, the company has announced.

Knoll Pharmaceutical Company, Orange, New Jersey, has traditionally supplied the sales and promotion efforts for this line and will now take over its distribution.

Appointments at Robins

An expansion of the biological research activities of the A. H. Robins Company has been announced by E. Claiborne Robins, president, as he named two members to the staff of the Richmond, Va. pharmaceutical house: Marcus N. Carroll, Jr., Ph.D. who will serve as pharmacologist, and Oscar Klioze, Ph.D. as director of product development.

The company has also announced appointment of Richard A. Velz as director of public relations.

John D. Hayes

John D. Hayes, general counsel and secretary of the Norwich Pharmacal Company, died suddenly at his home in Norwich, N. Y., on October 22nd. He had joined Norwich in 1948 and was named secretary in 1954.

Benjamin M. Spencer

Benjamin M. Spencer, owner of B. M. Spencer & Company, New York chemical products brokers, died recently at his home in New York City after a short illness.

Abbe and Beach-Russ Move

Abbe Engineering Company and Beach-Russ Company have moved their general sales offices to larger quarters in the Graybar Building, 420 Lexington Ave., New York City 17. Their new telephone number is ORegon 9-7636.

A. Thornton Bishop

A. Thornton Bishop, president of the Bergen County Park Commission and executive editor of publications for the Metropolitan Life Insurance Company, died recently in New York City's St. Clare's Hospital.

Mr. Bishop had, in addition to his many other activities, an independent career in art as author, lecturer and teacher, and from May 1948 through September 1950 he created the cover art for Drug and Cosmetic Industry.

Henry S. Thomas

Henry S. Thomas, M.D., director of Medical Service, Merck Sharp & Dohme Research Laboratories, division of Merck & Company, died October 9 in his home in Fort Washington, Pa.

Dr. Thomas had formerly served as medical director of Ciba Pharmaceutical Products, Inc., and later of Nepera Chemical Company.

John F. Anderson

John F. Anderson, physician and researcher, died September 30 at the age of 87 at St. Peter's General Hospital, New Brunswick, N. J.

Dr. Anderson had held many public health positions both here and abroad. From 1916 until his retirement in 1947, he was associated with E. R. Squibb & Sons, his last position being vice-president.

Architect's drawing of new executive office wing for the Reheis Company's Berkeley Heights, N. J. headquarters. Construction is expected to be completed by January, 1959.

Exploring the Secrets of Nature

Applying new scientific knowledge to develop synthetic aromatics hitherto unknown
Re-creating, synthetically, precious natural distillates and extracts
These are problems successfully mastered by our research chemists and perfumers.*
Experiences thus gained inspire to further DRAGOCO ACHIEVEMENTS

***BULGARYOL** synthetic Bulgarian rose oil
NEROLYOL synthetic Neroli oil big. pet.
BIGARADIA perfect reproduction of «Absolu de Fleurs d'Oranger»

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Recognized for their superior working qualities, incomparable brilliance and dependable uniformity.

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FIRST PRODUCERS OF CERTIFIED COLORS

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ESTABLISHED 1851

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BRANCHES IN OTHER PRINCIPAL CITIES OF THE U.S.A. AND THROUGHOUT THE WORLD

GROCOL 600

by all tests, the best Hydrogenated Tallow Glyceride

Strict quality control in the manufacture of GROCOL 600 Hydrogenated Tallow Glyceride has established a new benchmark for the industry —an iodine value of below 0.5.

This indicates extremely low unsaturates and assures correspondingly long shelf life for your products — whether quality plasticizers, esters, lubricants or finishing agents.

Lightness of color is unexcelled. Stability under heat is outstanding. In a recent test, production samples of GROCOL 600 gave a Lovibond reading of 0.2 red and 1.3 yellow before an A.O.C.S. method heat test, and a reading of 0.2 red and 2.2 yellow afterward.

Free fatty acid content is well under 0.5% with an average below 0.25%. Unsaponifiables are 0.25% maximum. Odor is bland.

Your payoff in sales will improve if you "Always specify A. Gross" Hydrogenated Tallow Glyceride —GROCOL 600. You can see why.

Send for samples and brochure, "Fatty Acids in Modern Industry."

FATTY ACIDS

STEARIC ACIDS • COCONUT FATTY ACIDS • TALLOW FATTY ACIDS • VEGETABLE FATTY ACIDS
RED OILS • WHITE OLEINES • HYDROGENATED TALLOW GLYCERIDES • HYDROGENATED FATTY ACIDS

a. gross & COMPANY

295 Madison Avenue, New York 17, N. Y. • Factory: Newark, N. J.
Distributors in principal cities • Manufacturers since 1837

glamour in stainless steel

Saving many man hours of labor with GROEN "cooker-mixer" kettles, and employing the very latest equipment and techniques in methods of handling liquid items are demonstrated in these pictures at Helena Rubinstein's cosmetic factory, designed to operate on the "gravity-flow feed" system.

AT HELENA RUBINSTEIN

GROEN steam-jacketed, agitator kettles process quality cosmetic products

Twenty GROEN stainless steel, steam-jacketed "cooking-mixing-cooling" kettles (30 to 1000 gallon capacities) with single or double motion agitators provide *maximum reliability, efficiency and purity* in the preparation of shampoos, lotions, creams, mascara and other formulations at Helena Rubinstein's world-famous cosmetic laboratories at East Hills, New York.

For example: The heavy-duty, life-time construction plus sanitary, modern design Model TA twin-shaft "cooker-mixer" kettle, shown above, assures controlled heating and cooling temperatures to exacting laboratory standards in processing of fine cosmetic products. Thorough blending-mixing is accomplished by the main agitator which rotates slowly and swirls the cream mixture into the high-speed secondary mixer. Various types of mixers—paddle, beater, bar or turbine types—can be utilized. All agitator parts are readily removed for fast, easy cleaning.

GROEN also builds a complete line of stainless steel Mixing, Cooking and Storage Tanks, Revolving/Coating Pans, and Vacuum/Pressure Vessels for drug and cosmetic applications. For more technical information, write to GROEN MFG. CO., Dept. DCI-258.

FREE LITERATURE

Bulletin TAK-2 gives complete description and specifications on GROEN line of stainless steel, stationary and trunnion "cooker-mixer" kettles. Revolving/Coating Pans described in Bulletin VP-1. Literature sent on request.

World's Largest Producers of Stainless Steel, Steam-Jacketed Kettles —Since 1907

GROEN

GROEN MFG. CO.

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Management Forum

BY FRANCIS CHILSON
INDUSTRIAL CONSULTANT

Management Dynamic

Inherent in all men there is a potential capacity for accomplishment which rarely is utilized. You and I know that it is only the supreme geniuses who strive constantly to utilize all their faculties all the time. And, as they strive, their faculties increase. The Darwins and the Einsteins had the capacity to hold their minds to the pursuit of a single subject for days and months and years. The great artists and violinists: Michaelangelo, of whose studies of the human hand some five hundred survive and he probably made a million. Paderewski, practicing the piano eight hours a day even after he became the greatest pianist in the world. And so it goes.

It is said that we can't all be Darwins or Einsteins or Michaelangelos but the real reason is that we don't want to be. It is much easier for you and me to spend our waste time in the bar with convivial companions, or looking at a silly show on television or just plain loafing. If you and I deliberately fail to utilize our potential capacities to the fullest, what about the millions of people who lack our education, experience and incentives?

Now the reason for this long preamble: to show that in any group of men, with or without education, there is a potential for accomplishment and for management, which needs only leadership and stimulus. Let me cite a few examples to illustrate my point.

Prior to World War I we were an agricultural nation primarily. Mass, standardized production was known only in the Ford plant. We had no chemical industry. The Germans had that. We had no merchant marine and no shipyards worthy of the name. The English and the Germans and the Swedes did all our marine building and transporting. With no preliminary we were suddenly called upon by the exigencies of war, not only to produce our own chemicals and our own ships, but to make enough to supply our Allies as well. How do you make chemicals without chemists? How do you build ships when the majority of the people has never even seen one? But we did. We did because we had to.

I was in college when we got into war and I spent one fruitful summer in the Newburgh (N.Y.) shipyards. I was a junior engineer and up to that time I had never even been on a sea-going vessel much less built one. But I could read blueprints and make a reasonable facsimile of one provided the subject was not too complicated. We had a Scottish consulting engineer who knew the difference between stern and bow. We had a chief engineer who had been for a time at Hog Island. We had a yard boss from Hog Island. The rest of us were farmers, laborers, students, clerks and tramps. Somehow or other we built a ship. Somebody had conceived the idea of pre-fabricating the plates, stantions and other parts of the vessel. But the parts didn't fit because the fabricators had a different set of prints from those with which we were working. But in a surprisingly short time we had built a twelve thousand ton freighter and launched her with immense pride. That ship did everything but float. Apparently it preferred the submarine service and it sank after reaching the fitting out yards in New York.

But it was our pilot plant. The farmer boys had discovered the difference between a ship and a manure spreader and the next ship did float. By the end of the war that yard was producing a completely outfitted ship every twenty-eight days—a record that was surpassed by no other yard in the nation.

What had happened here? It is a manifest impossibility to gather together eight or ten thousand men completely ignorant of the project in hand and teach them the difficult art of ship building. There wasn't time; there wasn't staff—there were only a few tough gang bosses and still fewer guys who could read blue prints even if they didn't know anything about ships.

Time after time in the drug and cosmetic industries during the last war I saw the same thing happening on a less dramatic and smaller scale. Cosmetic firms took contracts for the production or assembly of complicated mechanical devices. I saw ampoules produced on assembly lines by the millions. I set up tablet departments in plants where nobody had the faintest clue about making and coating tablets. But they soon learned. I saw pharmaceutical clients take on vast contracts for the production of food and other products they didn't know anything about. But they produced them just the same. I saw laborers and printers converted overnight into gang bosses, foremen and superintendents and the majority of them made good. Of course in such cases the triggering mechanism was the necessities of war—not to mention the desirability of avoiding the draft by working in a war industry. But nevertheless the jobs were done and done well by people who in the course of normal peace-time pursuits would never have been entrusted with such heavy responsibilities. Now right here is a point I wish to emphasize: you can never develop a person's potential unless you let the person know that you believe he has it and then give him the full responsibility of realizing it.

It would be absurd to say that it is only the stimulus of war that causes people to utilize some of their potential capacity. The history of the U. S. is replete with millions of examples if you would only recognize while you are reading history that you are reading about people who utilized more than the normal amount of their potential capacities. When I walk abroad in the broad fields about my house I think of the men who cleared them out of the primeval forest only two hundred years ago. Think of the could not be uprooted by the biggest of our modern bulldozers. But they were uprooted by men who were not woodsmen or lumberjacks; they were not farmers, but they cut the trees, dug out the roots, picked up the rocks and built the stone walls that still survive especially in the northeastern states. The tools they had were the axe, the mattock, the crowbar. The lucky ones had a team of slow-moving oxen. And they all had the best of tools: faith and hope and determination. They built roads and bridges and churches and canals—these men who were not mechanics nor engineers—who were not educated at all, but responsive to leadership and belief in themselves.

Consider also the great Western migrations. What manner of people were they? Would you for any reward whatsoever walk three thousand miles or ride that far behind a pair of stinking lumbering oxen? Would you suffer the stink of unwashed men, women, children, oxen, cows, horses—the suffocating heat, the freezing cold, the inadequate badly cooked food—or alternatively the starvation and thirst? Would you suffer the agonies of a sick family riding in a heavy wagon without springs with no medicines to give them or any medical attention? Would you watch them die one by one and still go on? Would you go on in the face of attacks by Indians and the dangers of being lost in swamps or lost in swirling rivers? Would you go on knowing that after reaching California—if you were one of the lucky ones—that you'd still have to dig for gold and that you might not find it? What manner of people were they, who could face such uncertainties and endure so much work, privation and pain?

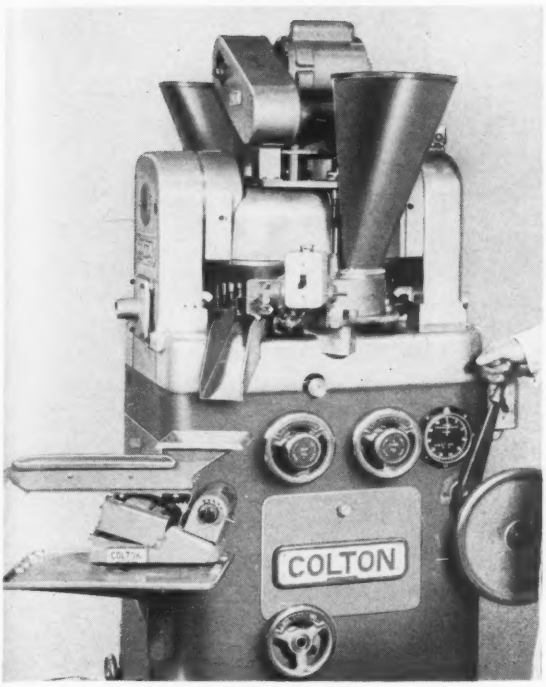
They were ordinary folk like you and me, responding to leadership and daring to utilize to the full their potential physical capacities in the light of hope.

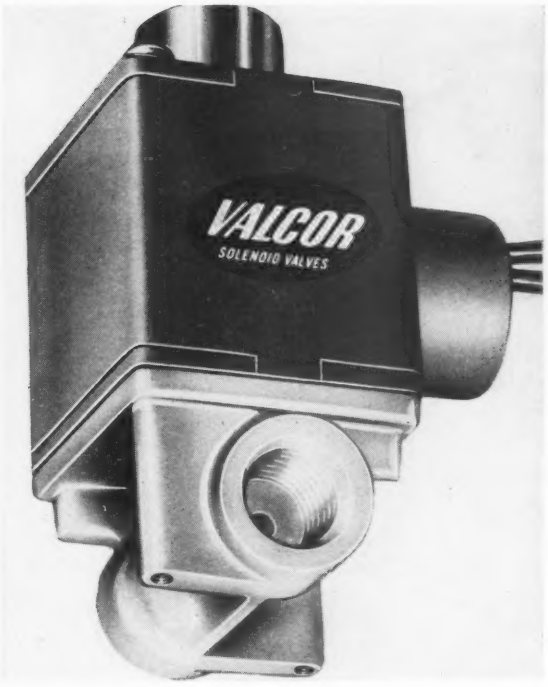
To bring this discussion home to you. If you have several people under your direction you can be sure they are utilizing only a small part of their potential capacities. What are you doing to stimulate or trigger these capacities? What are you doing to develop your own?

Bea Morton

It is with a feeling of deep sadness that I announce the untimely death of my secretary, Beatrice Morton. Her death was not untimely in the biblical sense of "three score years and ten," for she was over seventy, but it was untimely in the sense that she seemed such a timeless person. She had no grey hair for all her years. Her dark brown eyes sparkled with youthful zest up to the day of her death. Her magnificent sense of humor and her full free laughter at anything that struck her funny enlivened the years she worked with me. She kept me supplied with the newest jokes and the local gossip and she used to roar with laughter at what she called the "local yokels" whom she referred to as "characters." But she herself was the outstanding character of them all .

When I established my office in East Chatham where I live, I was lucky enough to find her. She had then retired from Sherman and Sterling after more than thirty years as a law secretary. She could take dictation as fast as I could talk right on the typewriter. When I'd challenge the spelling of a word technical or otherwise, she'd always be right and I wrong. She was the most well read woman I have ever met and she could read and write Spanish and French like a native of these countries. When I came back from extended trips she did not hesitate to work Saturdays and Sundays or any number of nights to catch up. Her heart held no malice for anyone and her charity was exemplified by the care she took of an old crippled employee of her father's who lived with her. At the age of seventy she agreed to play the organ in the Catholic church although she was not a Catholic and she journeyed to Albany frequently to brush up her technique. She was an exceptional secretary, a wonderful person and an utterly loyal friend. I shall not meet her like again.





New Induced Die Feeding Process

The Arthur Colton Company, Division of Snyder Tool & Engineering Company, 3400 East Lafayette, Detroit 7, Mich., has introduced a new induced die feeding process that doubles production of rotary table presses and eliminates slugging and granulation operations for many tablet materials. Die table speeds of up to 60 rpm are possible, resulting in a production rate of up to 6,000 tablets per minute. A variable speed drive between the feed frame agitator and its motor permit adjustment of the unit to the flow requirements of various materials.

The feeder units are made in several sizes to fit Colton standard rotary presses.

Three-Way Solenoid Valve Outlasts Steel

A new three-way nylon-body solenoid valve (see photo, above right) that outlasts and outperforms steel has been introduced by Valcor Engineering Corporation, 365 Carnegie Ave., Kenilworth, N. J. The SV-54 Series is recommended for general purpose and O.E.M. installations where millions of operating cycles are essential. Shock-resistant and pressure-proof, the SV-54 is available in all normal AC and DC voltages, as well as in normally open, normally closed and "directional control" configurations.

Redesigned Microvac Rotary Vacuum Pumps

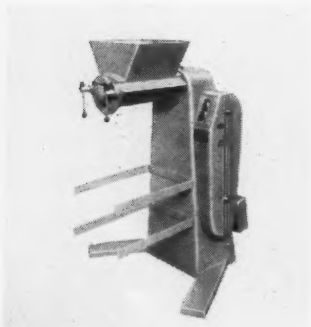
The F. J. Stokes Corporation, 5500 Tabor Rd., Philadelphia 20, Pa., has redesigned its Microvac rotary vacuum pumps, offering a new H series covering a wide range of vacuum pumping requirements. Each of the series has larger pumping capacity, increased volumetric efficiency, low power requirements, improved gas ballast to minimize oil contamination and more compact design. New poppet-type exhaust valves make operation quieter and minimize the need for attention.

A completely automatic lubrication system combined with the latest shaft-seal arrangement insures low maintenance and trouble-free operation.

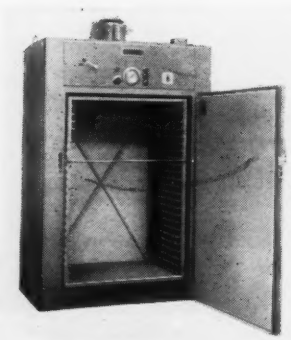
The model 212-H, the first of the H series of Microvac rotary pumps (shown below), has a pumping displacement of 140 c.f.m.

Versatile Stokes Model 566 machine enables Wyeth Laboratories to develop many kinds of multi-layer tablets.

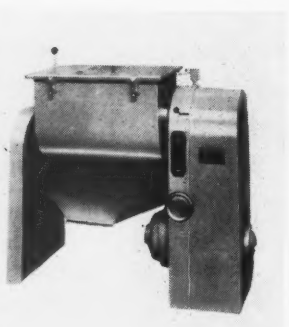
Stokes Auxiliary Equipment for Pharmaceutical Manufacturers



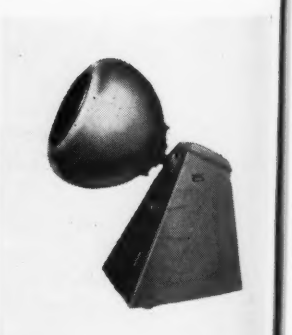
Granulators employ the efficient oscillating principle for breaking up moistened or dried aggregates. In a range of capacities.



Drying Cabinets use recirculating air; steam or electric heating under automatic control. Models with 5, 16 and 24 trays.



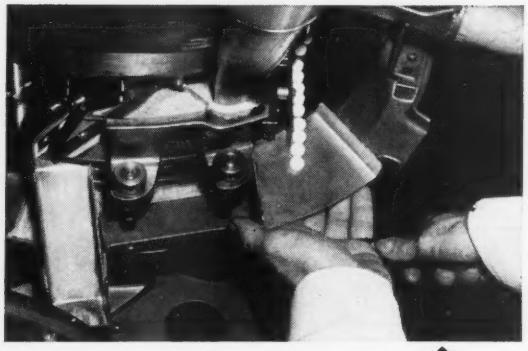
Granulating Mixers, for blending wet or dry materials, feature dust-tight lid, safety shut-off, controlled tilt for unloading.



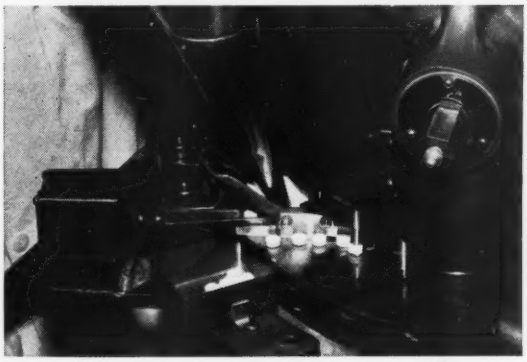
Coating Pans. Model 1-D stand uses 16″ to 60″ stainless or copper pans, or polishing pans with removable canvas drums.

Wyeth explores new ideas in multi-layer tablets

Stokes multi-layer tabletting press used to combine incompatible ingredients, create varicolored effects at Wyeth Laboratories Research Institute.



Operators can readily check weight of each layer, by setting the machine to eject samples without stopping production.



While weight samples are being taken, incomplete tablets are automatically diverted from the normal discharge chute.

Product development people at Wyeth Laboratories are carefully looking at new products that are now made possible by Stokes' development of a practical, precision production machine for multi-layer tablets. On a Stokes Model 566 multi-layer machine, they are working out many new ideas that may soon become new items in their product line:

Combining incompatibles. The multi-layer technique permits ingredients that cannot be blended together for conventional tabletting methods to be made into a single tablet, with incompatible materials separated into layers. It offers an ideal solution to combining incompatible materials for increasing or controlling effectiveness of certain drugs.

Special color effects. Various color combinations of layers can be used for identification, or for novelty appeal in children's medicines.

Individual layer pre-compression, in the Stokes presses, gives clean line separation and highly accurate control of weight in each layer. Weight tolerances of 1% or better are readily maintained. It's easy to check weight of each layer while the machine is operating. Three-layer presses can be easily set to produce two-layer or conventional tablets.

Stokes Model 566 multi-layer tablet machines use standard BB-2 punches and dies. For full facts, write to Stokes today, or contact your nearby Stokes tabletting representative.

Pharmaceutical Equipment Division

F. J. STOKES CORPORATION

5535 Tabor Road, Philadelphia 20, Pa.

STOKES

This typical G-W Eppenbach Agi-Mixer is fully jacketed. Hydraulic lift raises mixing assembly. Contact parts are stainless steel.

only Agi-Mixers give

HOMOGENIZING PADDLE MIXING

at the same time!

...That's why hundreds of users have found G-W Eppenbach Agi-Mixers just about the most useful processing equipment they possess.

Rotating paddles with teflon scraper blades work unrefined material down from the edges and top of the kettle to the high-speed, high shear Homo-Mixer homogenizing head. Here the material is drawn through small clearances between a precision turbine and stator, and ejected upward against an adjustable deflector plate. At this point the paddles again direct the material down, and this cycle is repeated until the entire mass is properly homogenized and blended.

G-W Eppenbach Agi-Mixers are built for rugged, exacting, time-saving service, and have scores of uses in processing pastes, creams, batters, slurries, gums, adhesives, pigments, resinous and latex compounds, and other viscous products.

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(*Continued from page 607*)

of the findings. If a test is set up with merely a sufficiently large sample of the population to satisfy the law of probability, but part of the responses must be assumed to be false, then the true remainder will not be numerous enough for statistical significance.

For the sake of exposing further weaknesses of consumer testing let us now assume a perfectly honest respondent who has given a true rating and expressed an unbiased preference. This judgement is valid as of *today*. Will it still stand a year hence, or will it be obsolete? The lead time for the marketing of a new product is from six to twelve months and over. Can an opinion gathered this year serve as a reliable guide to product preference next year? Especially in the cosmetic industry, a hectic fashion business in a generally dynamic market place where this season's dud might become next season's rage, or vice versa.

The same consideration of obsolescence applies to the standard against which a new product is compared. The best selling brand of its kind is likely to be selected as the standard, but it has been the leader in the period *preceding* the test! Here is another potential trap.

Due to these handicaps consumer testing can hardly serve as a constructive guide to imaginative new product development. Indeed, the most insidious danger of consumer testing is its tendency to drag original and different technical developments down to the level of the lowest denominator of current popularity.

Common sense also must take into account the factors of experimental error. This involves the reliability and skill of the interviewers, the accuracy of the transcribing and tabulating steps, and the appropriateness of chosen methods of statistical analysis.

Finally, there is the element of expense in time and money. Well-organized true consumer tests of adequate size are costly. How costly was not divulged at the Seminar. The panelists were shy about the fees they charge for their services to the point of not even mentioning them. And the audience didn't ask about it either, diffidence about money matters being a characteristic trait of the SCC.

Now, after the listing of many reservations. the obvious question is: Does consumer testing make any sense at all? The answer is a qualified yes; under certain conditions, yes, after other testing methods have been used. One should always investigate whether working with a selected panel or other screening methods might not do the job cheaper, faster and possibly better, before investing in a full-fledged consumer test.

One condition that seems to demand a consumer test is frequently encountered in industry, the manufacturer's desire to make a change in formulation, ingredients or processing of an established product for economic reasons. The change, however, should not be noticeable to the consumer. When the product development department believes it has accomplished

this then there must be a check to determine whether it really has. The best technique for such a check is a triangle test with qualified consumers. This test involves a standard and two samples, one identical with, and one different from the standard; the respondent merely tries to pick the odd sample and no value judgement is rendered. But the respondents should be qualified, which means that they should possess the physical capacity to make the required distinctions. What is the use of asking partially color-blind people to match shades, or partial anosmics to rate odors?

Do the professionals in consumer testing ever go to the trouble to find qualified individuals and to screen out the unqualified ones?

Where new products are concerned consumer testing can and should be used when the proper conditions are available, despite all the difficulties mentioned above. Sometimes the proper conditions do not exist, and the testing of a shaving cream which was proudly quoted by a panelist is a fine example in this respect. Here was an all-round inferior product. No particular credit was even claimed for any advantage over existing, competitive items. It should not require consumer testing to find out that a product has no merit whatsoever. Indeed it is the height of ineptitude to go as far as a consumer test for anything new unless its creators have good reason to believe that it has at least one aspect of superiority.

When this is the case, consumer testing can serve a useful purpose to answer two questions before enthusiastic and expensive commitments for promotion and advertising are made:

(1) Is the alleged superior feature noticed?

(2) If it is noticed, is it also appreciated?

To the first question some form of triangle test should be applied. The best technique to deal with the second, more difficult question will depend on the nature of the product and other factors. The results can help to select the most promising merchandising and advertising approaches or, when negatives are uncovered, can prevent the launching of marketing efforts that would be doomed in advance.

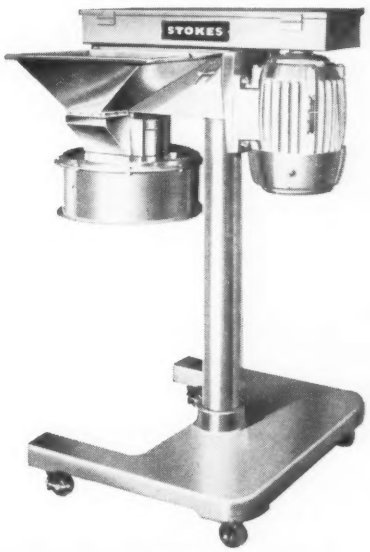
Despite all its vagaries, consumer testing continues to grow. The increase in the number of organizations devoted to the task was pointed out by one of the Seminar speakers. This proliferation is not necessarily a result of their doing a better job. Much of it can be attributed to managements' craving for more and more data—good, bad or indifferent. But that leads to another story.

PHARMACEUTICAL MAILING

(*Continued from page 609*)

try—a case where a tremendous saving could be realized, as well as an almost complete elimination of container breakage. This, of course, is based on the

(*Continued on page 656*)



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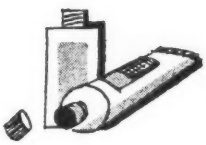

Advancing Therapy

Sterisol Oral Antiseptic

Despite successful use of fluorides in preventing childhood caries, it has been estimated that ninety-five per cent of all children have some carious teeth. In a group of more than two thousand physically fit young men, examined and accepted for military service, more than four per cent required extractions on induction, and the number of carious teeth ranged upward to twenty-seven in a single person, with a mean of seven carious teeth per recruit.

A conference to acquaint the dental profession and scientists in associated disciplines with the activity and potency of hexetidine was held October 23, 1958, in Chicago under the sponsorship of Northwestern University Dental School. Thirteen papers were presented, on the chemistry, activity, and safety of the drug, on its effectiveness in oral hygiene, and on use of the one-tenth per cent solution in treatment of diseases of the oral cavity.

The chemical, bis 1, 3-beta-ethylhexyl - 5 - methyl - 5 - amino - hexahydropyrimidine available in a one-tenth per cent solution for oral antisepsis as Sterisol, has been shown to be a potent killer of both bacteria and fungi in vitro and in vivo, in the laboratory and in clinical studies.

The new drug, in laboratory investigation, has destroyed more than a hundred strains of Gram-negative and Gram-positive organisms. These include virulent strains of staphylococci, commonly found in the oral cavity, which have become resistant to penicillin and other antibiotics.

The antibacterial potential of hexetidine was established in 1953 by Northwestern University scientists headed by Dr. L. S. Fosdick, engaged in screening a number of chemicals in a program supported by the Lambert Co., now part of the Warner-Lambert Pharmaceutical Company. The development of hexetidine into a usable oral antiseptic is the result of five years of subsequent research under the direction of Dr. Robert G. Sanders of that company.

A second important chemical characteristic is hexetidine's affinity for protein tissue. A single application of hexetidine solution, forms a bond through adsorption upon mucous tissue or skin, and clings tenaciously, retaining its ability to destroy germs for hours afterward. Carbon-14-tagged hexetidine has been recovered from mucous tissue of the mouth up to seventy-two hours after topical application.

A supplementary test established that the new drug also clings to dental plaque, retaining germicidal activity for ten to twelve hours after a single administration and preventing formation acids. After nearly five years of testing against more than a hundred forms of pathogenic organisms, there is no evidence of the development of resistance to the new drug.

Employing the new drug over a six-months period in a dilute liquid form Dr. V. F. Lisanti of Tufts University Dental School reached the following conclusions:

1. Use of the solution produced significant and prolonged reduction of bacteria.

2. There was a marked beneficial effect on periodontal disease, and objectionable breath was essentially eliminated.

3. There was no undesirable shift in the bacterial flora of the mouth over a six-month period, nor evidence of yeast or mold overgrowths.

4. There were no cases of irritation or sensitization, and no evidence of toxicity.

Other clinical studies were read before the Northwestern University conference. Dr. Benedict B. Kimmelman of Albert Einstein Medical Center, Philadelphia, reported on 297 cases, 84.8 per cent of which showed favorable results. Dr. Antoine Raymond, professor of oral surgery at Montreal, reported 87.5 per cent good results in 145 cases.

Dr. Howard E. Lind, of Sias Laboratory, Brooks Hospital, Brookline, Mass., reported that immediately following an application of hexetidine solution, mouth odor was reduced by 95 per cent and total bacteria count was reduced by 94 per cent. A reading taken ten hours after the original application of hexetidine showed that mouth odor remained reduced by 75 per cent.

Anabolic Steroids

Testosterone has long provided a way of checking protein breakdown, though its scope has, perhaps, not been explored as thoroughly as it might have been—partly owing to the limitations imposed on its use, particularly in women and children, by its virilizing activity. The therapeutic applications of steroids capable of promoting protein build-up—or opposing catabolism—are now being reexplored because synthetic agents with reduced androgenic or virilizing activity have become available. Dr. Gjorup and Dr. Thaysen from Copenhagen and Dr. McCracken and Dr. Parsons from Leeds report some preliminary results with norethandrolone in renal failure. Norethandrolone (17-α-ethyl-19-nortestosterone) is said to have the same anabolic potency as testosterone with only about one-sixteenth of its an-

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DRUG & COSMETIC INDUSTRY

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drogenic activity. The object of using anabolic steroids in renal failure is to reduce protein catabolism and hence, to prevent accumulation of nitrogenous end-products, together with potassium, in the blood. In acute renal failure following complications of pregnancy McCracken and Parsons were able to reduce the production of urea by as much as 70 per cent.

Gjorup and Thaysen in cases of subacute and chronic renal failure treated with norethandrolone or nandrolone (19-nortestosterone-17-β-phenyl propionate) achieved a reduction in the serum content of nitrogenous waste-products despite an increase in the amount of protein allowed in the diet. The combination of increased dietary protein and anabolic steroid led to a gain in weight due to an increase in lean tissue.

Earlier experience with testosterone in renal failures suggested that this treatment might be more valuable in acute than in chronic cases. After trying testosterone in chronic renal failure Freedman and Spencer concluded that the beneficial effect was small but that the treatment was worth using in acute exacerbations of chronic uremia as well as in recent acute cases.

Nitrogen retention tends to "escape" as treatment with norethandrolone is prolonged, but in the urinary excretion of calcium no such effect is detectable. Prunty et al. used the hormone in cases of osteoporosis induced by treatment with cortisone and prednisone, with good effect in two patients. Dr. West discusses the effect of adrenal stimulation on the body stores of protein in patients with rheumatoid arthritis. Unless the diet was poor or muscle activity seriously restricted, a gain in protein stores occurred during long-continued treatment. West finds in these results no support for the routine administration anabolic hormones during protracted corticosteroid therapy; and the use of anabolic steroids to avert osteoporosis, though not without theoretical justification, certainly lacks the support of any controlled investigation.

The wider application of anabolic steroids to counter the protein-catabolic phase of acute illnesses, accidents, or major surgery obviously requires very careful appraisal. While the indications for its use are being defined it is well to remember that treatment of a patient in hospital for one week with norethandrolone will be quite expensive and that testosterone can often provide an acceptable alternative.
—*The Lancet, II:* 890, 1958

Pinworm Treatment

The successful elimination of pinworm infection with a single dose of a drug developed by Parke, Davis & Company, was reported by Dr. J. Walter Beck, associate professor of microbiology at the University of Miami School of Medicine in a paper delivered at a meeting of the American Society of Tropical Medicine and Hygiene.

Poquil (pyrvinium pamoate) is the trade name of the raspberry-flavored liquid which was studied in 100 patients in Florida.

The non-toxic drug effected a cure rate of more than 95 per cent following treatment.

Pinworm, the intestinal infection which disregards social-economic levels, is prevalent in over 30 per cent of the children in the United States. Reports indicate that pinworm infection is found predominantly in temperate and colder climates and in heavily-populated areas.

In his single dose study, employing 11 mg. of Poquil per pound of bodyweight, Beck reported that a majority of those studied were free of pinworm infection within 72 hours after taking the liquid.

Fungicide

For the inhibition of fungi, monilia and bacteria, Crookes Laboratories Ltd. recently introduced Episol. Containing 0.5 per cent. 5-chloro - 2 - (*p*-diethylaminoethoxyphenyl)-benzthiazole, it is non-mercurial and in the concentration used is fungicidal rather than fungistatic. It is said to be effective at low concentrations and has extremely low toxicity. It is indicated in fungus infections of the skin, including athlete's foot, tinea capitis and ringworm infections of other sites.

Amebiasis Antibiotic

Humatin, an oral antibiotic developed by Parke, Davis & Company, has been used successfully in treatment of patients with intestinal amebiasis, according to a report by Dr. C. H. Cater at a meeting of the American Society of Tropical Medicine and Hygiene.

In his study to determine the most effective dosage of the antibiotic, 65 amebiasis patients were given tablets of Humatin in various doses for periods of one to five days.

Forty-five patients, or 92 per cent of those who received Humatin doses of 12.5 mg. per kilogram of bodyweight and more for five days, developed consistently n e g a t i v e stools during the observation period. Lesser amounts of the drug for five days were inadequate, the physician reported.

No side effects were noted in any of the patients, and it was concluded that Humatin is worthy of further study in amebiasis.

New Oral Diuretic

Esidrex, (dihydro-chlorothiazide), developed by Ciba Pharmaceutical Products Inc. of Summit, New Jersey, has been used successfully in relieving edema associated with high blood pressure, congestive heart failure and other diseases. The new oral diuretic is not yet commercially available, but preliminary investigations by 80 clinicians in the United States and an additional 70 in other counrties indicate that it is the most potent diuretic known today.

Cancer Drug

The compound 2,5 di-propyloxy-3,6 - di - ethyleniminobenzoquinone (E-39) was administered intravenously by A. Brunschwig (*Cancer* 11: 765, 1958) to 40 patients with various forms of advanced cancer, a large percentage of which were ovarian in origin. There were positive responses in 2 of the 5 patients with advanced cancer of the colon, and 7 positive responses among the 13 patients with ovarian cancer. While no instance of complete regression of advanced cancer was observed, E-39 was active in causing temporary restraint of growth and regression of malignant neoplasms in 13 of the 40 patients treated. Depression of the circulating leukocyte and platelet levels, with purpura in a few instances and gastrointestinal hemorrhage in 1 case, was observed.

Industry's Books . . .

Dispersion Of Materials, *by Rolt Hammond, A.C.G.I., A.M.I.C.E., 230 pp., Philosophical Library, New York, (1958), cloth,* **$10.**

This is volume II of a series of books on the physical processes in the chemical industry. The first two chapters of the present volume deal with the principles and practice of crushing, grinding and classifying materials, including special methods needed for the processing of those that are very hard and otherwise difficult. Chapter 3 gives an account of the important subject of fluidization with its industrial applications, its advantages and its limitations. Flotation, including froth flotation, forms the subject of Chapter 4, while liquid dispersions occupy Chapter 5. This covers solutions, emulsions, emulsoids, gels, coagulation, homogenization etc. The last chapter deals with the dispersion of gases and atmospheric pollution and contains information on the nature of smoke and the causes of pollution, the treatment of gaseous effluents, gas washers, dust collection, acid mists, electrical resistivity of dust and all other aspects of this vitally important subject.

Modern Chemical Processes Volume V, *by the editors of "Industrial And Engineering Chemistry" 154 pp., Illus., 8½"X11½", Reinhold Publishing Corp., New York, (1958), cloth,* **$5.**

This is the fifth volume in a series that describes American chemical technology in pertinent detail. Volume 5 contains fourteen recently developed chemical processes, all now in operation. Descriptions include: background, commercial and technical history and origin of present installation; plant installation, design details of non-standard items; process and operation of plant; economics of process, including raw materials and processing cost breakdowns; plant investment and amortization; personnel; and future prospects. The first four volumes to be issued every two years are reference works of the very latest and most modern production methods in the chemical and process industries.

Fundamentals Of High Polymers, *by O. A. Battista, Research and Development Div., American Viscose Corp., 140 pp., Reinhold Publishing Corp., New York, (1958), cloth,* **$5.50.**

This condensed text covers every important area of high polymer science. It is written for those who need a basic knowledge of this vast field, and brings within one volume the entire scope of the industry. The basic terms, definitions, and the chemistry of high polymers precede chapters on the creation of a high polymer, the architecture and geometry of long chain molecules, solution and solid state properties, physical properties, and the future of high polymers. A general bibliography provides an extensive guide to the published literature.

Separation And Purification Of Materials, *by Rolt Hammond, A.C.G.I., A.M.I.C.E., 327 pp., Philosophical Library, New York, (1958), cloth,* **$10.**

This is Volume I of the series on Physical Processes in the Chemical Industry. It covers solid-solid, solid-liquid, solid-gas, liquid-liquid, liquid-gas and gas-gas systems, with a final chapter on separation and purification in nuclear engineering. From the multiplicity of plants and equipment available, the author has described the main types, so that a suitable choice may be made for specific purposes.

Vinyl Resins, *by W. Mayo Smith, Director of Research and Development, Escambia Chemical Corp., 282 pp., Reinhold Publishing Corp., New York, (1958), cloth,* **$5.75.**

This book surveys the applications of vinyl resins against background information on their types, properties, chemistry, manufacture and fabrication. All recent advances in the vinyl field are covered. New polyvinyl chloride "pearls" and Delrin resins are included. The treatment of polymerization systems for vinyl chloride is developed in considerable detail. Many items expected to show unusual growth, such as vinyl laminates, rigids, foamed material and latex paints, are brought into focus.

Modern Manufacturing Formulary, *by Emil J. Belanger, Registered Pharmacist, 399 pp., Chemical Publishing Co., Inc., New York, (1958), cloth,* **$10.**

This work includes modern formulas in the chemical manufacturing fields such as food products, flavoring extracts, practical household articles, cosmetic specialties and toilet preparations, medicinal preparations, veterinary remedies, carbonated beverages, ginger ales, beverage extracts, fruit oils and miscellaneous chemical products. A helpful appendix lists the rules for figuring doses, consumer protection by the Food, Drug and Cosmetic Administration, labeling of drugs under the provisions of the Federal Food, Drug and Cosmetic Act, sterility of ophthalmic solutions, a memorandum on warning statements, Fair Practices and Food and Drug Act, classified buying directory and a detailed index.

Methods Of Analysis For Petrochemicals, *Edited by E. R. Littmann, Ph.D., Enjay Company, Inc., 384 pp., Chemical Publishing Co., Inc., New York, (1958), cloth,* **$12.**

This book provides the chemical industry with procedures for testing primary and secondary products derived from petroleum and used in manufacturing processes or syntheses. Some of the methods have been assembled from ASTM publications in their original form, others have been modified to suit customers' specifications, still others have been developed in the laboratories of the Enjay Company, Inc. Included are 61 different methods, not only giving the procedures but also listing reagents and preparation of samples and describing and illustrating suitable apparatus and their assembling, calculations and accuracy of results.

The Extra Pharmacopoeia Martindale, *Vol. I—twenty-fourth Edition, Published by direction of the Council of The Pharmaceutical Society of Great Britain, The Pharmaceutical Press, London (1958).*

A review of this work in the August, 1958 issue of Drug & Cosmetic Industry did not mention the fact that in the United States the book is obtainable from the Rittenhouse Book Store, 1706 Rittenhouse Square, Philadelphia 3, Pa., and the price is $13.00.

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The Language of Fragrance

Have you taken time out lately to check a series of fragrances either in perfumes or colognes that have withstood the test of time?

Make a serious review of the top fragrance of 15 leading perfume and fragrance organizations. The perfume leaders of each organization have real "emotional" perfumery appeal.

Remember that odors, fragrances or smells, if you prefer, can take you all the way from the most sublime to the most disgusting.

Perfumes that really become commercial successes are those that evoke real emotional appeal in the individual. The advertising agency, the bottle maker, the package designer and the copywriter sell the first bottle, but never the second. It's the emotional impact of the fragrance, the quality that makes a woman spend her own money for the second bottle. This is recognition of quality and emotional impact.

A real flower language exists based on the kind of emotions induced by the fragrance of flowers, herbs, gums, and spices.

A few of the emotional responses of the flower fragrances have come down through folklore, mystery, poetry and prose.

Acacia = Friendship
Rose or white acacia = Elegance
African Marigold = Vulgarity
Almond = Stupidity
Allspice = Compassion
Aloe = Grief, bitterness
Ambrosia = Love returned
Angelica = Inspiration magic
Apple = Temptation
Autumn leaves = Melancholy
Balm = Sympathy
Basil = Sympathy
Basil = Hatred
Balsam = Touch-me-not
Belladonna = Hush
Bilberry = Treachery
Birds foot = Revenge
Bluebell = Constancy
Borage = Bluntness
Rose = Happy love
Buttercup = Childishness
White camellia = Perfected loveliness
Calla = Magnificent beauty
Cape Jasmine = I am happy
Cedar = Strength
Chamomile = Energy
Champigon = Suspicion
Chicory = Frugality
Chrysanthemum = Cheerfulness
Clematis = Mental beauty
Cloves = Dignity
Columbine = Folly
Coriander = Hidden worth
Cow slip = Youthful beauty
Cress = Stability
Croeus = Youthful gladness, mirth
Cylamen = Diffidence
Fennel = Worthy strength

How many of these subtle fragrances bring instant reactions? How like H. W. Parker's poem "To A Flower," found in a chest of tea.

"This simple flower has deeper thoughts for me
For that, like mine and every living soul,
It has its own unravelled history
Recorded on no earthly page or scroll
For that it is a thread of sympathy
With lands beyond where other oceans roll;
Within the infant rind of this small flower,
Memory hath, "residence," and *Fancy*, "power."

Not purple adjective, not words, just one of the real reasons why the second bottle of perfume is purchased, quality and subconscious persuasion.

Lipstick Perfumes

Lipstick perfumes differ from all other cosmetic perfumes in that they are tasted as well as smelled, according to V. Vasie (*Manuf. Chem.* 29: 431, 1958). Palatability must be considered together with the usual properties that govern the selection of perfumes, namely stability, irritation, discoloration, compatibility with other ingredients, and coverage.

Strongly odorous synthetics are preferred for lipsticks. Weakly odorous compounds contribute little to the intensity of the fragrance, but may adversely affect the taste and may also promote irritation, toxicity and decomposition.

The alcohols, especially rosaceous, a large variety of esters and some essential oils and natural products are the first choice in lipstick perfume compounding. Solid aromatics should be used with great care because they tend to crystallize out and to deposit a white film on the lipstick after some time in storage. It is most important that the chosen ingredients do not decompose or volatilize at the temperatures required for lipstick processing.

Among essential oils which may be used to advantage are oil of anise, bitter almond, cinnamon, cloves, lemon, orange and mandarin. Celery oil will give interesting effects in combination with other aromatics. The effect may not be immediately noticeable, however, as in the case of coriander oil, which develops a lemon aroma only after a period in storage. In using essential oils of this type care must be taken that their pronounced flavor does not obscure the pleasant effect of the mixture. Certain essential oils such as geranium, lemongrass, petitgrain, patchouli and vetivert are not suitable for lipsticks.

... A lively blend of florals ... The perfect accompaniment for an exuberant, gay, youthful personality.

... A fragrance to be loved and worn with confidence ... Refreshing, clean and mildly sophisticated.

... Truly, a most beautiful frag
A lilac blend ... Tender, w
and extremely wearable

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. . . Truly, a most beautiful fragrance . . .
A lilac blend . . . Tender, warm
and extremely wearable.

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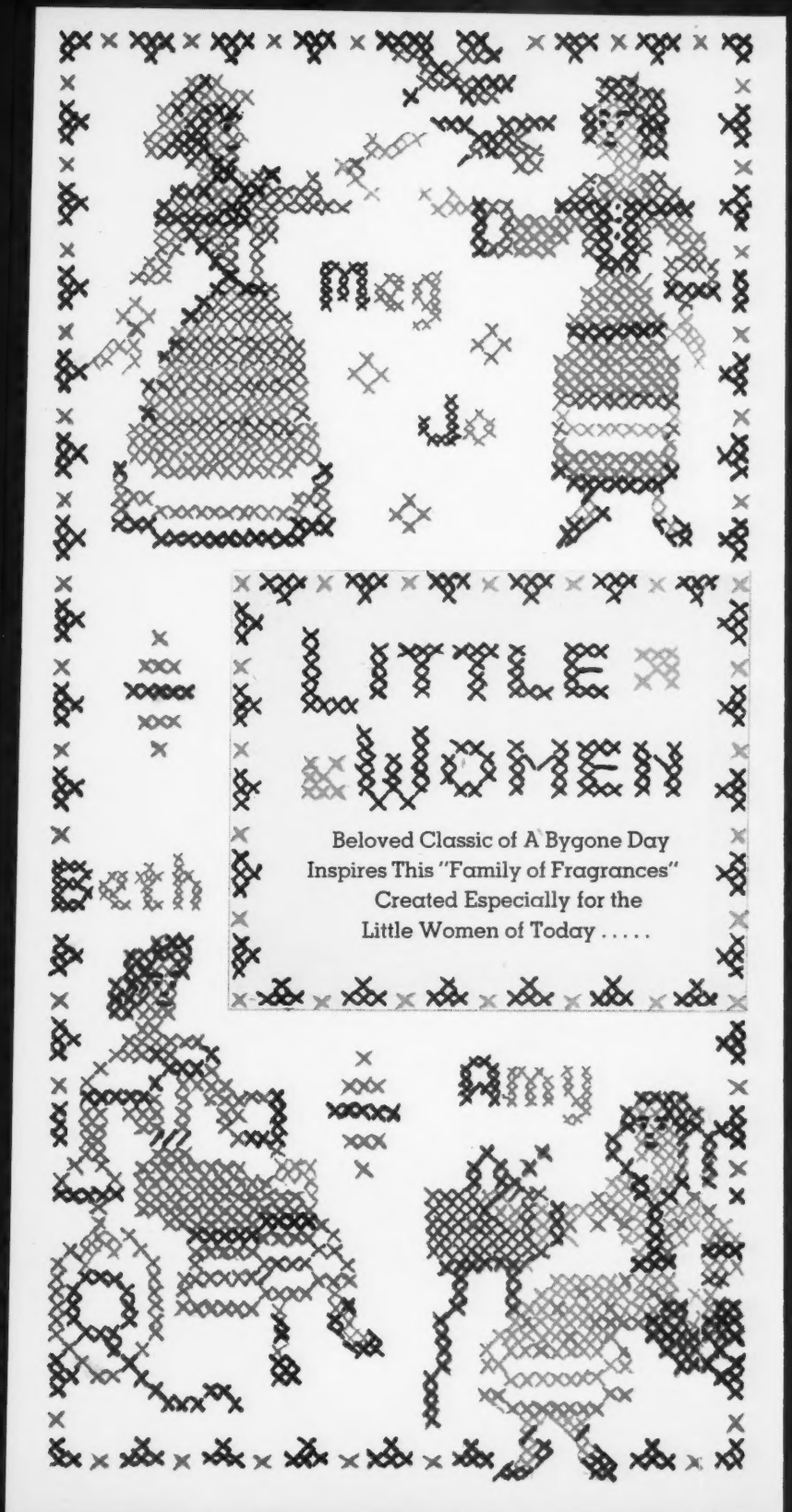

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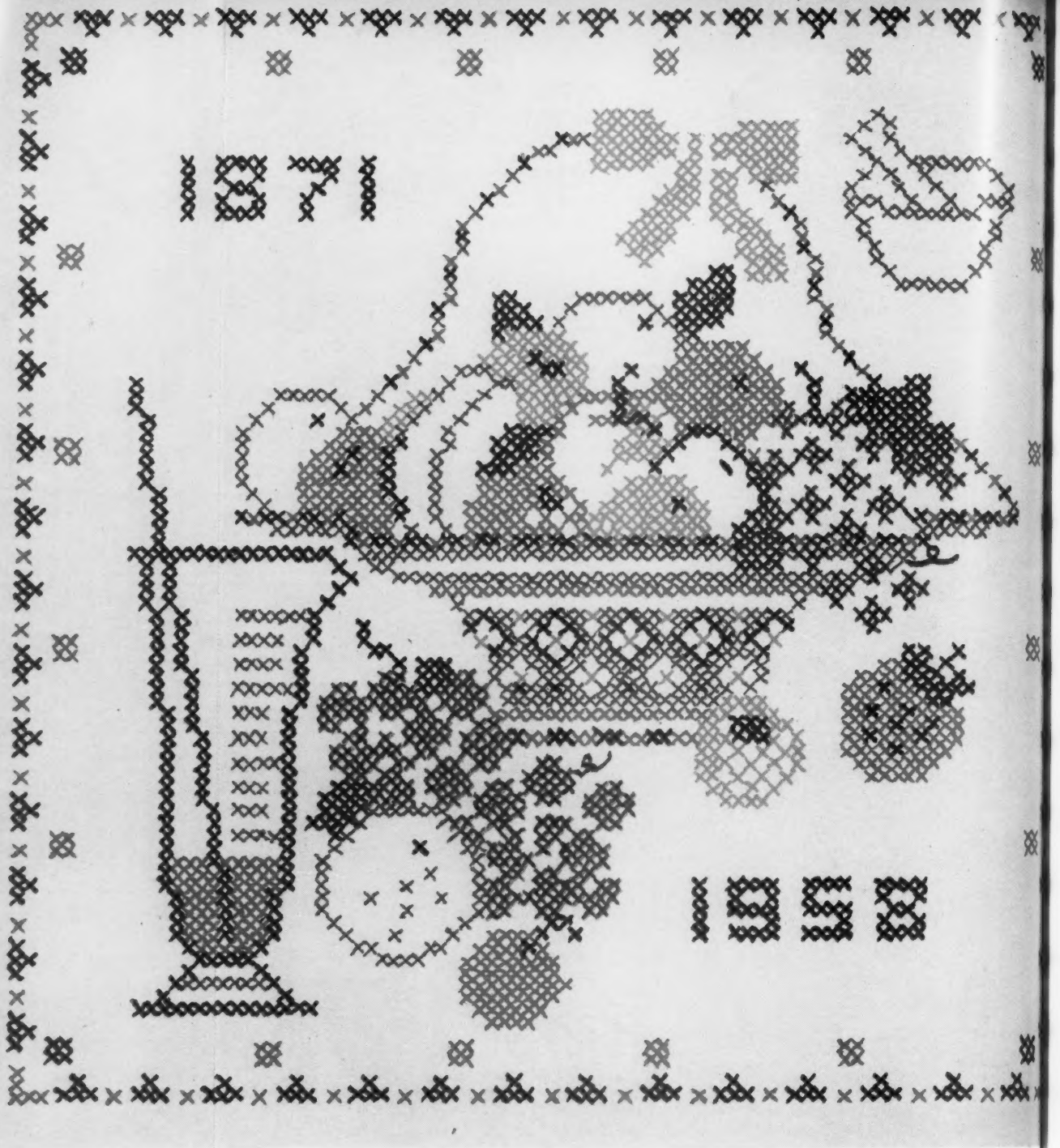
EST. 1871



SINCE 1871...

Embroidered samplers – now collectors' items – are cheerful reminders of the era in which FRITZSCHE was founded. In that 87 year span, FRITZSCHE has grown strong and has prospered. It has steadily accumulated and multiplied its resources in experience, scientific understanding and knowledge. It is ready and eager at all times to share these resources in solving its customers' fragrance and flavoring problems.

FRITZSCHE BROTHERS, INC.

76 NINTH AVENUE, NEW YORK 11, N. Y.

Essential oils often give better results when used in the form of their terpeneless derivatives or isolates.

Solvent-extracted concretes are excellent for use in a lipstick perfume compound. They should be warmed gently before use in order to redissolve precipitated plant waxes.

Resins and oleoresins can be very useful in compounding lipstick perfumes. Liquid resin specialities are often unsuitable owing to the presence of undesirable solvents such as the dialkyl phthalates.

The fixation of lipstick perfume is not so important as with other cosmetic perfumes, but some degree of fixation is necessary.

Lipstick perfume must retain its normal odor characteristic for long periods. Normally the ingredients of a lipstick will not react adversely with the correct perfume materials, but care must be taken to examine all new ingredients. Fats will absorb perfume and the lipstick mass may contain ingredients which tend to become rancid with age. Rancidity may be prevented or retarded by adding an antioxidant up to 0.2 per cent to the lipstick mass.

Although lipsticks rarely cause cheilitis or dermatitis of the lips, the possibility of irritation must be kept in mind because the lips are more susceptible to sensitization than other portions of the skin.

Chemically active aromatics such as aldehydes, ketones and unsaturated compounds in general may be expected to cause allergic reactions or even genuine irritation, but in most cases the lipstick base tends to counteract the irritation. Some compounds in this group have been used for years with complete satisfaction.

Cheilitis due to the presence of geranium oil in lipstick perfume has been reported. Heliotropin has been implicated as a possible cause of dermatitis and its use in lipstick perfume is being discouraged. Other ingredients which have been found to be more than negligibly irritant or allergenic are methyl heptine carbonate, benzylidene-acetone and oil of bergamot. However, if the same rules of selection are observed as when creating a perfume for other face cosmetics, irritation should not constitute a difficult problem except where allergenic reactions are involved.

There is some evidence that terpeneless oils are less sensitizing than straight essential oils. It is also pertinent that the admixture of azulene in lipsticks prevents or reduces the irritating effect of certain aromatic chemicals and essential oils. Azulene is easily soluble in fats and oils, paraffins, waxes, etc., and it is miscible with almost all aromatic chemicals and essential oils. It is sufficient to incorporate between 0.005 and 0.02 per cent of the product. In this proportion the blue dyestuff of the azulene does not affect the color of the lipstick.

Discoloration caused by perfume is very rare in lipstick except in unusual cases where the color of the lipstick is very light.

Many aromatic materials otherwise suitable for lipsticks have a bitter taste, *e.g.* acetophenone, benzyl acetate, benzyl dimethyl carbinyl acetate, cinnamic alcohol, *p*-cresyl methyl ether, *p*- and *m*-cresyl phenyl ether, dimethyl benzyl carbinol, eugenol, geraniol *ex* citronella, geranyl acetate, anthranilate, formate and propionate, methyl eugenol and methyl isoeugenol, *p*-methoxy acetophenone, musk ketone and ambrette, nerol, neryl formate and isovalirate, phenyl methyl carbinyl acetate, phenyl ethyl cinnamate, rhodinol, rhodinyl acetate and propionate, tetrahydrogeraniol, terpenyl anthranilate, cinnamate, formate and propionate, vanillin *ex* clove and *ex* guaiacol.

The following aromatics produce burning sensations: acetophenone, benzyl acetate, coumarin, eugenol, eugenyl acetate, ethyl decine carbonate, isoeugenyl acetate, methyl anthranilate, methyl isoeugenol and terpineol.

Apart from aromatic materials, some components of the lipstick base also have a bitter taste. The bitter taste of perfume or lipstick base components can be corrected by adding 1 per cent of a mixture containing 2.5 per cent of soluble saccharin and 97.5 per cent of lanolin. The mixture is obtained by melting lanolin with saccharin, passing twice through a roll mill, reheating and mixing until cool.

Perfume should not be added when the lipstick mass is very hot and, of course, after perfuming the mass must not be execessively heated otherwise the perfume may volatilize or other untoward reactions may occur.

The perfume should be added after the mass has been freed from the air that has been entrapped during milling and mixing. Usually perfume is added, with stirring, just before the mass is poured into the molds. The normal manufacturing practice is to prepare large quantities of lipstick mass in various shades. These are stored in a cool place until needed. They are usually perfumed and molded in small amounts.

Perfuming Cold Wave Solutions

Concerning the fragrances which prove satisfactory in permanent waving liquids, the specific odor note of these treatments has to be duly considered. Two ways of improving these notes exist according to K. Bergwein (*P.E.O.R.* 49: 638, 1958) namely:

a. modification through an addition of tart, spicy notes; and

b. attempts to cover the thioglycolic odor with contrasting aromatics;—particularly those having a fresh, fruity top-note. Apple blossom and peach blossom compounds achieve fine results in this instance, and 1-1.5 per cent of oil is the correct proportion to be employed.

Any perfumed waving liquid should be tried out in storage during a few months before being placed on the market, since the complex mixture might react in many unforeseeable ways. Perfume specialists have studied the problems arising in this field, and developed their own bouquets for use in cold waving liquids: these may save lot of trial-and-error work to the manufacturers of hair waving preparations.

The following aromatics are stable in alkaline media: aromatic alcohols, ethers, ketones, and hydrocarbons. A medium degree of stability results from using aldehydes, esters, phenols, and acids. Discoloration of the liquid, as a result of alkaline reactions, will occur if aromatics which include amino groups (such as indol, and anthranilic acid methyl ester) are employed in the presence of aldehydes and ketones —for instance, in a mix of anthranilic acid methyl ester with hydroxycitronellal, heliotropin, or, acetophenone.

(*Continued from page 647*)

premise that compatibility and permanency problems will be overcome, as well as on a further drop in the price of polyethylene or a similar plastic, to a point where it can compete with glass. In my opinion, glass for functional container use has been around too long!

In accordance with the far-range thinking of this symposium, I can visualize inter-continental ballistic missiles being used in the future as vehicles for quick mail and parcel post delivery service—let us say, from New York to San Francisco. Attached to the master ICBM there could be piggy-back mail missiles that could be released at Columbus, Chicago and Denver en route to its destination on the West Coast. Perhaps—to be even more practical—there could be an inter-city missile mail delivery, for instance, for Summit, Newark and Trenton, New Jersey. All this follows launching pad developments, controlled missile flight and landings.

So, if you think you have had problems in the past in regard to package delivery, beware! There is a new mode of parcel delivery on the horizon, but how long it will take to materialize, no one knows. However, we do live in an age where the word "impossible" is obsolete, and I predict that suppliers of packaging materials, although they may not realize it, will have to answer the challenge of better cushioning and heat-insulating materials to be used in the future in the parcel service trans-continental missiles.

ANCIENT WONDER DRUGS

(*Continued from page 591*)

ful remedies and trustworthy practices were probably initiated by such trial and error efforts.

As Shakespeare might have put it when he visited the local "Stratford Leach," "To smell or not to smell, that is the question."

BIBLIOGRAPHY

Haggard, *Devils, Drugs and Doctors*, p. 323.
MacDonald and and Co., Ltd., "Civet" *The Columbia-Viking Concise Encyclopedia* (1954), p. 198.
Neuburger, M., *Medicine Throughout Antiquity* (Philadephia: Pa. F. A. Davis Company, 1949) p. 127.
McKenzie, *The Infancy of Medicine*, p. 69.

QUATERNARY AMMONIUM SALTS

(*Continued from page 593*)

such preparations to form a more desirable film against water because the emulsifier is capable of removal from the system by its substantivity to the skin. This function has been the subject of articles in the past and will not be treated to any great extent here. In passing, it may be worth mentioning that this substantive ability could cause an oil-in-water system to invert to a water-in-oil system after application and could be used in hair dressings, where the oil-in-water system could be more easily applied to wet hair and then having the emulsion invert to a water-in-oil system, the more desirable.

More recently a great interest has been shown in color rinses—products used to impart a temporary coloration to the hair, good from shampoo to shampoo. Many of these preparations use cationic color as their medium because of the ease with which they are adsorbed by the hair and in conjunction with quaternaries. These serve a two-fold purpose. Primarily, they act as wetting agents so that the colors may be better and more uniformly distributed through the hair and, secondarily, they supply the same manageability and softening factors as they do in the usual rinse. These are now largely beauty shop preparations, but they are appearing increasingly in retail channels. One of my informants has told me that their sale (through beauty shops) has been so successful that they are making serious inroads into the better known hair dyeing field. Under any circumstances, hair coloring in this new form appears to be gaining in popularity at this time.

There will undoubtedly be many more places where quaternary ammonium compounds could be used to advantage. I feel that their progress has been steady but not sensational, but as their properties become better known their use will increase in a greater variety of products.

HEADACHE

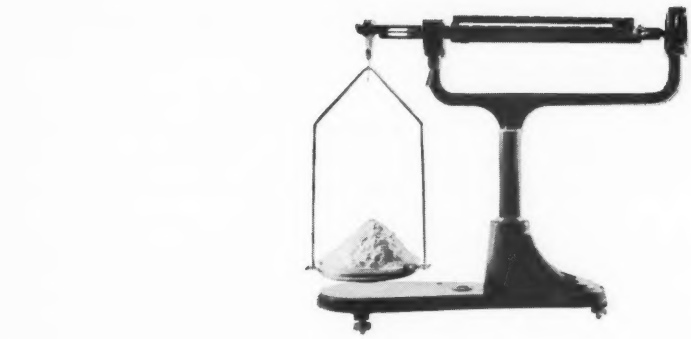
(*Continued from page 595*)

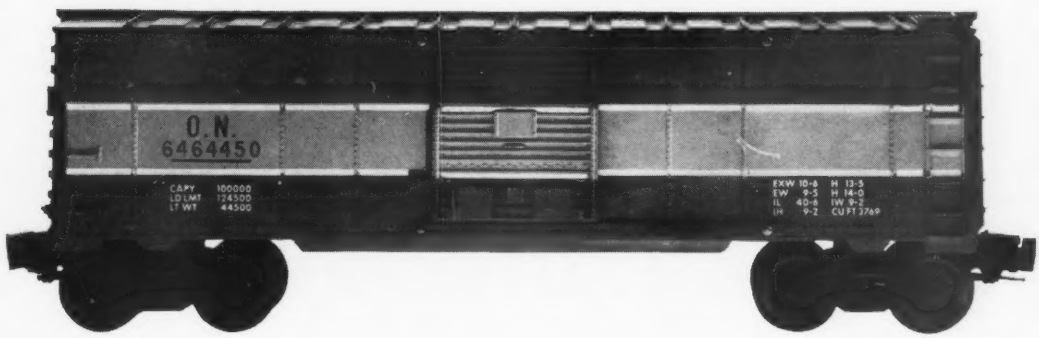
leans heavily toward psychological disturbances. This renders the treatment of tension headache nonspecific. The purpose of therapy is to relieve the tension and raise the pain threshold. This is best accomplished by use of an analgesic-sedative combination, such as one containing isobutyl allyl barbituric acid, acetophenetidin, aspirin and caffeine.

So many other medications are used in the treatment of headache that it is only possible to mention them without detail. Antihistamines have helped dramatically, especially in frontal type headaches. The intravenous use of histamine is a dramatic procedure which is sometimes excellent, but on the whole disappointing. Mild tranquilizers have been widely used in tension headaches with promising results. Drugs affecting the autonomic nervous system may help.

Vitamins, particularly nicotinic acid and B_{12}, have been popular agents in treatment of headache. Clinical studies, however, have been uniformly discouraging. Hormones appear of some small value in menopausal patients.

Combinations of analgesics and cortical hormones, although widely and effectively utilized in the treatment of musculo-skeletal pain, are less applicable in simple headaches.





kilos or carloads

Upjohn

FOLIC ACID U.S.P.

fine quality in bulk pharmaceuticals

FOR YOUR VITAMIN MANUFACTURING NEEDS, The Upjohn Company now offers folic acid in bulk – yet made in accordance with the same exacting standards of quality that have characterized Upjohn fine pharmaceuticals for almost seventy years. Upjohn Folic Acid is 99% pure by both chemical and microbiological assays. Its potency and purity are assured by several tests performed *in addition* to U.S.P. specifications.

INCLUSION OF FOLIC ACID IN STANDARD THERAPEUTIC VITAMIN CAPSULES for nutritionally depleted patients is recommended by the Committee on Therapeutic Nutrition. Folic acid, widely prescribed in certain types of macrocytic anemia, plays an important role in the formation of blood cells, protein metabolism, and the maintenance of tissue integrity.

UPJOHN FOLIC ACID is available in manufacturer's quantities as a powder . . . in standard particle size for tablets, capsules and powders . . . and in micronized particle size for oral suspensions and parenteral products.

UPJOHN BOOKLET ON "NEW DRUG APPLICATIONS" AVAILABLE ON REQUEST. THE UPJOHN COMPANY, CHEMICAL SALES DIVISION, KALAMAZOO, MICHIGAN

(*Continued from page 597*)

deal with any member organization violating these principles.

I can say that these points are now on every promotional director's desk and that the ever-continuing river of medical promotion will run cleaner as a result.

These same principles have long been recognized and established for promotional material at Wyeth. To ensure strict adherence to these principles, all promotional material emanating from our advertising department is subject to an elaborate system of internal and external checking.

Two copies of each manuscript and the layout are circulated to the Wyeth medical department; one to the physician in charge of clinical investigation of the product advertised, the other to the executive secretary of the medical department. The physician assigned to the drug checks for medical accuracy, correct interpretation of clinical studies, appropriateness and accuracy of any medical art. The executive secretary of the medical department approves the copy on the basis of its compliance with the advertising principles of the American Medical Association.

The copy must not imply efficacy for use in an indication or extension of indication not directly stated in the New Drug Applications nor in any dosage exceeding that recommended in the N.D.A. Continuing clinical investigations of a drug may have revealed its usefulness in indications above and beyond those reported and approved in the original N.D.A. and have resulted in articles published in the medical literature. These indications, however, cannot be used as a basis for medical advertising until sufficient clinical evidence has been found, that is, numbers of investigators and of patients, and length of studies has been reported, submitted to and approved by the Food and Drug Administration, resulting in an extension of the N.D.A.

The filing and approval of this additional clinical evidence is time-consuming and frequently drops behind the medical literature and current thinking of the medical profession. It is an ever-present temptation to bring these new facts to the attention of the medical profession by direct mail and journal advertising, but this is not possible until the conditions previously mentioned have been fulfilled.

A copy of the manuscript and layout is submitted to Wyeth's legal department to check the legal aspects of labeling as well as strict adherence to the claims effective in the N.D.A. The then somewhat revised copy and layout proceeds to the director of promotion and sales for approval, and finally to a member of management, usually the president, for final policy approval and release.

Some promotional material is subject to additional approval by sources other than Wyeth. In cases where a personal communication resulting from a clinical investigation is cited, permission from the author is required before publication. Frequently, the author is obliged to request approval from his hospital affiliation, his superior or even the patients involved in the study.

Further checking of copy and art is carried out by copywriter, proofreader and advertising supervisor during the stages of producing the printed piece. Final review of the completed advertising piece, whether for direct mail, journal advertising or use by Wyeth territory managers in detailing doctors, precedes its release.

This procedure, required of all advertising promotion at Wyeth, consumes weeks of effort and time on the part of many persons. Even with a mailing schedule to maintain and deadlines imminent, Wyeth promotional material always follows this elaborate system of checks and balances.

This advertising is again scrutinized externally by the F.D.A. and, I might add, that the A.M.A. does a great deal of policing of medical advertising and promotion.

Now, about the pharmacist. Although he is a professional man, he is still a business man. He must compete in a fast-moving trade with others who are eager to make a profit and are harassed by the present-day problems of inventory, personnel, overhead, taxes and promotion. It isn't any wonder that some members of this combined profession and business fall by the wayside and permit themselves to downgrade their professional standing by practices that are often unethical, out-of-order, unwarranted, uncalled-for, unjustified and unprofitable.

I might mention just a few:

(1) Putting the name of a prescription drug up on a huge banner in the store—YES, WE HAVE MILTOWN.

(2) Giving trading stamps with prescriptions with an added bonus of, say, double stamps on Wednesdays.

(3) Actually making derogatory comments on the professional standing of competitive pharmacists or implying that competitors are ill-prepared professionally, that one pharmacy's drugs are fresher, cheaper, cleaner than those of a competitor.

(4) Still another unethical practice is that of a new pharmacy distributing an offer of a dollar discount if residents of a neighborhood will bring their prescription re-fills to the new pharmacy.

(5) One that never fails to alienate the medical profession is that of offering on radio, TV, or by mail an invitation to customers to come by the drugstore for health items and to see Doc Jones. There is nothing better calculated to lose the respect of the physician.

(6) Another bad practice is that of soliciting the names of physicians' nurses and secretaries and offering them merchandise on discount, with the obvious implication of the future favor of steering Rx customers to that drugstore.

To prevent such practices, codes of ethics have been subscribed to by pharmacists of all the states. For example, the Pharmaceutical Societies of the States of Alabama, Alaska, Arkansas, California, Colorado and Connecticut and on down the roster.

Some codes are not sufficiently positive, and certain associations are revising theirs. For instance, the New Jersey state pharmaceutical association is attempting to strengthen its code of ethics and a report has been recently issued by a special Code of Ethics Committee. In brief:

(1) They are tightening their relationship with the New Jersey State Board of Pharmacy.

(2) They have issued a statement of principles and precepts for consideration by the members of the association based in part on the Fair Trade Code for Advertising and Selling as adopted by the Association of Better Business Bureau, Inc. condemning the unethical business practices previously mentioned.

(3) They have strengthened their public relations program.

(4) They urge members of the association to display the emblem of the association.

(5) And they are strengthening their relations with other professional groups such as the bar and medical associations, on local, county and state levels.

Control of non-members is always difficult but certain things can be done. By strengthening their legal department in New Jersey, they are watching for actual violations of the law and are drawing these to the attention of the authorities for prosecution.

In addition, the New Jersey group recommends that close, cooperative relations be established with civic and political groups. Political groups are particularly important because of the possibility of nonconformists gaining political office.

It is only by controlling errant members and nonmembers that pharmacy will gain and retain the professional standing the pharmacist wants, and that the public has learned to expect of him.

HAND CREAMS

(*Continued from page 599*)

GENERAL FORMULA #3A HAND CREAM

Stearic acid	13.0
Cetyl alcohol	1.0
Stearyl alcohol	1.0
Lanolin	1.0
Glycerine	10.0
Potassium hydroxide	0.9
Quince seed (2% solution)	20.0
Perfume	qs.
Preservative	qs.
Water	53.1
	100.0

Nonionic lotions and creams represent newer types which lean heavily on hydrophilic esters or ethers as emulsifiers of the fatty acids. The important hydro-

Plymouth **ESTABLISHED QUALITY SPECIALTIES**

Ozokerite Waxes Both White and Yellow Ozokerite in a variety of melting points are available. We believe oil retention properties to be better than any other similar products commercially available.

Ceresin Waxes Plymouth White Ceresin Waxes are a standard of quality for the formulation of the finest cold creams. These waxes are available in a range of melting points and degrees of absorbency.

Crystal "E" Oil This 70 Viscosity Technical White Oil (meeting U.S.P. Acid Test) is considered more advantageous for many cosmetic formulations than higher viscosity N.F. Oils.

Special Petrolatums If natural Petrolatums will not "do the job", Investigate our Special Petrolatums tailored to individual requirements.

Lanolin, U.S.P. and Cosmetic.
Petrolatum U.S.P., all grades.
Beeswax, White and Yellow U.S.P.
White Mineral Oil U.S.P. and N.F., all grades.

PLYMOUTH BRAND

M. W. PARSONS-PLYMOUTH, Inc.

59 BEEKMAN STREET
NEW YORK, N. Y., U.S.A.

Telephone BEEKMAN 3-3162—3163—3164
Cable Address: PARSONOILS, NEW YORK

philic nonionic emulsifiers, esters and ethers comprise:

1. Glyceryl monostearate (slightly hydrophilic)
2. Propylene glycol monostearate (slightly hydrophilic)
3. Polyoxyethylene glycol monostearate lmw (slightly hydrophilic)
4. Polyoxyethylene glycol monostearate hmw (strongly hydrophilic)
5. Sorbitan monostearate (slightly hydrophilic)
6. Polyoxyethylene sorbitan monostearate (strongly hydrophilic)

The attributes of nonionic emulsifiers are well-known, such as resistance to freezing and relative insensitivity to wide variations in pH (4-9). In creams, lack of crust formation and minimal shrinkage are ascribable to the use of these emulsifiers. The most favorable results are achieved by a combination of strongly hydrophilic and slightly hydrophilic emulsifiers.

GENERAL FORMULA #4 HAND LOTION	
Glyceryl monostearate	3.0
Lanolin	1.0
Stearic acid	2.0
Glycerine	5.0
Isopropyl myristate	0.3
Cetyl alcohol	1.0
Polyethylene glycol distearate	1.0
Preservative	qs.
Perfume	qs.
Water	86.7
	100.0

GENERAL FORMULA #5 HAND LOTION	
Stearic acid	5.0
Lanolin	1.0
Sorbitan monostearate	0.4
Polyoxyethylene sorbitan monostearate	2.0
Glycerine	5.0
Preservative	qs.
Perfume	qs.
Water	86.6
	100.0

GENERAL FORMULA #4A HAND CREAM	
Stearic acid	5.0
Isopropyl myristate	1.0
Sorbitan monostearate	2.4
Polyoxyethylene sorbitan monostearate	2.0
Glycerine	5.0
Preservative	qs.
Perfume	qs.
Water	84.6
	100.0

Cationic emulsifiers for cosmetic use, while limited in number and application provide interesting properties which are not found in anionic or nonionic surfactants. Cationic emulsifiers are based upon quaternary ammonium, morpholinium, pyridinium and imidazolinium salts. They are efficient emulsifiers but maximum stability is obtained with auxiliary nonionic surfactants.

Cationic emulsifiers form acid emulsions which are desirable, since average normal skin is slightly acid in reaction. They plate readily on negatively charged surfaces such as skin and leave an emollient film. Cationic agents also possess marked bactericidal action which may be reduced appreciably by incompatible substances such as anionic surfactants and free fatty acids.

Inactivation of bactericidal properties with free fatty acids is on a molecular basis and if germicidal properties are required in a cream or lotion, an excess of cationic agent is indicated. Emulsions prepared with cationics have proven highly stable and usually do not increase in viscosity during shelf-life. Representative formulations of cationic hand creams and lotions are:

GENERAL FORMULA #5 HAND LOTION	
Glyceryl monostearate	3.0
Isopropyl myristate	1.0
Lanolin	1.0
Glycerine	5.0
Alkyl dimethyl benzonium chloride	1.0
Preservative	qs.
Perfume	qs.
Water	89.0
	100.0

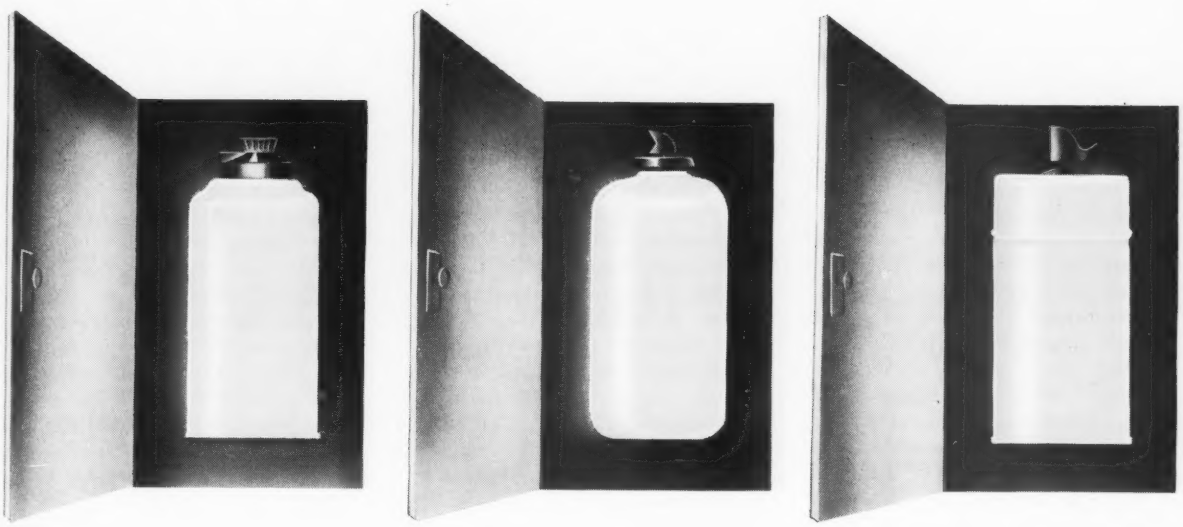
GENERAL FORMULA #5A HAND CREAM	
Glyceryl monostearate	15.0
Mineral oil	1.0
Lanolin	1.0
Glycerine	6.0
Cationic emulsifier	1.0
Preservative	qs.
Perfume	qs.
Water	76.0
	100.0

Barrier creams are growing in importance and there is a definite place for products which will effectively protect the hands against a variety of skin irritants. Apart from the highly useful silicones, there are many excellent substances which serve to advantage in this application. Recent developments in the rubber and plastics fields in the manufacture of water-soluble dispersions offer unusual possibilities to the imaginative and creative formulator.

Certain essential oils and synthetic aromatics are now known to affect the consistency and stability of many types of cosmetic creams and lotions. It is prudent to reply upon the experience of reputable perfume suppliers in selecting proper time-tested compounds for specific cosmetic products. Hand creams and lotions range from acid to alkaline in reaction and perfumes have been created to meet the stability requirements under these conditions.

With regard to product evaluation, it is most important that the cream or lotion be tested thoroughly for emulsion stability, viscosity, texture and color changes and finally, effectiveness in use. Perfumes should be evaluated on a basis of fidelity to the original strength and character. Stability should be determined at 3 levels, elevated temperatures, room temperature and freezing for specific time periods. Storage samples may then be compared to 7 day samples to detect variations from the standard.

Opening New Doors



Aerosol Sprays

CONTAINING

NEOMYCIN • GRAMICIDIN • TYROTHRICIN • BACITRACIN

The use of these antibiotics adds *new product sales appeal* and contributes to *product improvement* in items such as:

Complexion Creams	**Shaving Creams**
Lotions	**Antiseptics**
Sun Tan Oils	**Proprietaries**
Shampoos	**Drug Products**
Deodorants	**Other Specialities**

The recent growth of aerosols for these uses has been outstanding. If you are anticipating a new product or wish to create new consumer demand for your present product, this modern and increasingly popular method may well be the answer. We will welcome the opportunity to work with you. Of course, all discussions will be held in strictest confidence.

PENICK

Manufacturers of Fine Chemicals and Drugs

S. B. PENICK & COMPANY 50 CHURCH ST., NEW YORK 8 • 735 W. DIVISION ST., CHICAGO 10

Compounder's Corner

Cosmetic Aerosols

The main film-forming materials in use for aerosol hair sprays are shellac, ethyl cellulose and polyvinylpyrrolidone according to J. H. Briston (*Chem. Prod.* 21: 361, 1958) Shellac was the earliest material employed for hair sprays and is still used extensively in alcoholic solution; the dewaxed but unbleached variety is the product of choice. A grade of shellac has now been made available which is of light color but is free from acid bleach residues. This product is practically free from water and has a much lower acid number. Among other problems connected with shellac-based hair sprays, is the effect of the shellac/alcohol solutions on some perfume oils. Since human hair has a high retentive power for perfume, any adverse changes in odor would be very serious. Shellac alone is a very brittle film-former and plasticizers have to be incorporated. Castor oil was often used in early formulations but this also presented stability problems. A better plasticizer, and one which is often used, is *iso*propyl myristate.

A material which is being used more and more for hair lacquers and wave sets is polyvinylpyrrolidone and its co-polymers with vinyl acetate. P.V.P. is water, as well as alcohol-soluble and can, therefore, be washed out of the hair with ease. In the case of shellac, the film often breaks up into tiny flakes, giving the appearance of dandruff. P.V.P. is more flexible than shellac but is hygroscopic and inclined to stickiness in damp conditions. The addition of certain plasticizers such as myristic alcohol, *iso*propyl myristate and polyglycols tends to reduce the hygroscopic properties of P.V.P. The incorporation of a small amount of shellac has been suggested as a means of achieving water repellency but a microscopic examination of the final film, has shown that the shellac and P.V.P. are not fully compatible and the shellac thus fails in its purpose. More successful is the technique of plasticizing with dibutyl or dimethyl phthalate and adding a small amount (0.5 to 1.0 per cent) of a silicone. Here again, lanolin or lanolin derivatives may be incorporated if desired.

Antiperspirants are usually based on aluminum salts such as the chloride, chlorhydrate and the sulfocarbolate. Severe corrosion is experienced with this type of formulation and solubility is also a problem. The aluminum salts are insoluble in the propellants so that a co-solvent is necessary. Alcohol is the obvious choice for most cosmetic items but a difficulty arises in this case. Maximum solubility in the propellant is obtained with anhydrous alcohol but the astringents mentioned are only slightly soluble. Addition of water to the alcohol improves their solubility but has an adverse effect on the propellant/alcohol solubility.

Aerosol shaving creams consist basically of foaming and wetting agents with skin lubricants and beard softeners plus propellants.

The stability of the emulsions is improved by using perfume oils soluble in the propellants. Emulsions have thus been produced lasting for 24 hours instead of only a few minutes.

Polyvinylpyrrolidone is also used in shaving creams. It is suggested that it enhances spreading properties on the skin as well as leaving a residual smooth film and acts as a foam booster and stabilizer. The character of the foam is influenced also by the type and concentration of the propellants used in the formulation. Low propellant concentrations produce soft, wet foams, while high concentrations produce stiff, dry and elastic foams. Again, if different propellants are used at the same concentration, those with higher pressures tend to give stiffer, more elastic foams than those with lower pressures. Another important factor from the users' point of view is the volume of foam produced from a container during use. This depends, among other things, on the propellant concentration. The higher the propellant concentration, the greater the volume produced but this must be balanced against the fact that a drier, stiffer foam will result.

In their simplest form, after-shave lotions are alcoholic solutions of a mild astringent. If a metallic container is used, the normal corrosion problems associated with alcohol will be present, but a plastic-coated glass bottle will eliminate this problem.

Polyvinylpyrrolidone is sometimes employed in after-shave lotions. In addition to reducing the sting of the alcohol it tends to provide a smooth film on skin.

The foam characteristics of any particular shampoo formulation may be modified by propellant concentration and type, as already discussed for shaving creams. Formulations are much simpler than those for shaving creams, and often consist only of an aqueous solution of a foaming agent, plus the propellant. Lanolin may be added as a hair conditioner.

An extremely interesting suggested use of the aerosol principle is embodied in a British Patent 780,885 which covers the pressurized dispensing of colored foundation creams. The advantage claimed is that of more even application. Evenness of application is usually improved by aeration but under nor-

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mal conditions a highly aerated product tends to undergo severe shrinkage within a short time. This does not apply to aerosols since aeration is achieved only at the time of application. Examples of foundation cream formulations suitable for aerosols are given in the patent.

Owing to the unavoidable presence of at least some moisture in the formulation and the tendency of even the most stable propellants towards hydrolysis, the existence of traces of hydrochloric acid must usually be accepted. This can have serious repercussions on many of the organic chemicals used by the perfumer. Ester interchange, cyclization, condensation and dehydration are only some of the reactions catalysed by hydrochloric acid. The effect of such changes on even one ingredient of a carefully balanced perfume can be easily imagined.

Many common perfume ingredients are insoluble in the propellants and co-solvents must be incorporated. Many of the early perfume aerosols were subject to valve blockage due to the use of insoluble compounds such as oakmoss, styrax resins, balsam tolu, sandalwood, etc.

The irritant effect of certain compounds is exaggerated when dispensed in aerosol form. Benzyl benzoate is one example.

The odor of a perfume blend may be foundamentally altered when dispensed as an aerosol. When a perfume is applied to the skin a constant change in odor is apparent due to slight differences in evaporation rates of the various ingredients. In aerosol form however, the whole of the perfume is completely disseminated within an extremely short time. An entirely different formulation may, therefore, be needed to obtain the same result.

Certain perfume ingredients may cause corrosion of tinplate or aluminium, and corrosion products may initiate undesirable changes in the perfume.

Many perfume oils have a deleterious effect on plastics or rubber components of the valve.

The basic ingredients of any suntan formulation are a sun-screening agent, a vehicle, color and perfume. Optional additions are water repellents and insect repellents.

Many suitable sun-screens are known, among them being: menthyl salicylate, methyl *para*-dimethylaminobenzoate, benzyl salicylate, 2-hydroxy-4-methoxybenzophenone. Suitable vehicles, i.e., solvents for the sun-screen, perfume, etc. which are also compatible with the propellants, are ethyl and *iso*-propyl alcohols, paraffin oil and *iso*-propyl myristate. It is also possible to produce a sun-tan foam, with distilled water.

Reverting to the lotion type, if an alcohol is used as a vehicle it may be advisable to add a water repellent such as an alcohol-soluble silicone. With the oilier types of sun-tan preparations, additional water repellents may not be necessary. Another possible additive is an insect repellent, such as dimethyl phthalate. The propellants may be either 50/50 mixtures of dichlorodifluoromethane and trichloromonofluoromethane or 40/60 mixtures of dichlorodifluoromethane and dichlorotetrafluoroethane.

Long Duration Penicillin

In 1944, Romansky and Rittman introduced the first repository form of penicillin. This was a combination of amorphous calcium penicillin in oil and beeswax and a single injection of it could keep up an effective blood level for 24 hours. But this formulation had to be heated before use, and also at times produced sterile abscesses.

Procaine penicillin marked the first successful repository salt of penicillin. It is very widely used for sustaining concentrations of penicillin in blood for 8 to 12 hours. To further extend its period of effective blood concentration procaine penicillin is suspended in peanut or sesame oil to which 2 per cent aluminum monostearate is added. This continues levels for about four days.

Another salt of penicillin which gives blood levels comparable to procaine penicillin is 1-ephenamine penicillin.

In 1951 Szabo and coworkers announced the preparation of a new salt of penicillin known as Benzathine penicillin G, which is N, N′-dibenzylethylenediamine salt of penicillin G. This new salt marked a great advance over the previous salts of this antibiotic; a single injection can maintain therapeutic blood levels for a period of several weeks and it does away with injecting foreign material like oil.

As Benzathine penicillin G is stable to acid pH of the gastric juices and is tasteless, an oral suspension suitably flavored is used in the treatment of the young and the aged. However, Penicillin V levels are about twice those of penicillin G and a greater quantity of penicillin is made available to the patient during the six hour period after administration than is obtained with Benzathine pencillin G.

Hydrabamine penicillin G is another salt which has long acting effect and which is also acid stable, and therefore, can be given orally.

In the laboratories of the Hindustan Antibiotics Research Centre according to S. F. Boyce (Hindustan Antibiotics Bull. 1: 35, 1958) scientists have been exploring the possibilities of preparing new salts of penicillin. In this program, one group is working on a series of penicillin salts of the derivatives of ethylenediamine. Different fatty as well as aromatic groups like substituted benzyl derivatives have been attached symmetrically to the two nitrogen atoms of ethylenediamine.

Some of these new salts show promising results, particularly that of N, N′-dioctyl ethylenediamine. With respect to its solubility in water, stability in aqueous suspension, stability against acidic conditions, this salt compares favorably with Benzathine penicillin G.

A group of workers is investigating the penicillin salts of steroidal amines. Steroidal amines were chosen as bases for penicillin salts, because of the wide occurrence of steroidal compounds in the body, it was presumed that these amines might form a mode of transport for the penicillin molecule to the various tissues of the body. Besides, some of these amines themselves possess antibacterial properties. The steroid cholesterol was preferred as a starting material because it is relatively inert and available.

Preliminary biological studies have been carried out on some of these salts. Rabbits injected with 100,000 units have shown therapeutic blood levels of penicillin for periods varying from 5 to 9 days. These levels compare well with those obtained from a similar dose of Benzathine penicillin G in the same animal. These salts are tasteless, are stable to acid pH and appear to be comparatively non-toxic.

Trade Literature

APAP Bulletin

New York Quinine & Chemical Works, 50 Church Street, New York 8, has issued a 24-page pamphlet on N-acetyl-aminophenol (APAP), an analgesic-anyipyretic compound which has recently been found to have outstanding therapeutic utility and safety. The pamphlet, latest in the series of N. Y. Cues, is a review and digest of the chemical, pharmacological and clinical literature on the subject.

Drug Store Location

Drug Store Location Analysis is a new booklet available from McKesson & Robbins, Inc., 155 East 44 Street, New York 17. Saying that "somewhere between the real estate developer's ethusiasm and your worst fears about a new store location, lies the truth," the booklet indicates that its purpose is to provide an organized procedure as a basis for choosing a location.

Home Medicine

The Proprietary Association, 810 Eighteenth Street, N. W., Washington 6, D. C., has published a revised edition of Frederick, J. Cullen's earlier treatment of the subject. Dr. Cullen is medical consultant to the Association. Entitled "Your Home Medicine Chest," the 24-page pamphlet discusses for home use the history of the manufacture and distribution of packaged medicines, and the six major laws regulating their use and distribution in the U. S.

Waxes

The Sun Oil Company, Industrial Products Department, 1608 Walnut St., Philadelphia 3, has issued a 16-page technical bulletin describing the company's microcrystalline and fully refined paraffin waxes, including information on properties, emulsions, testing methods and packaging. Nineteen charts provide data on penetration, viscosity, density and solubility.

Abbreviations Manual

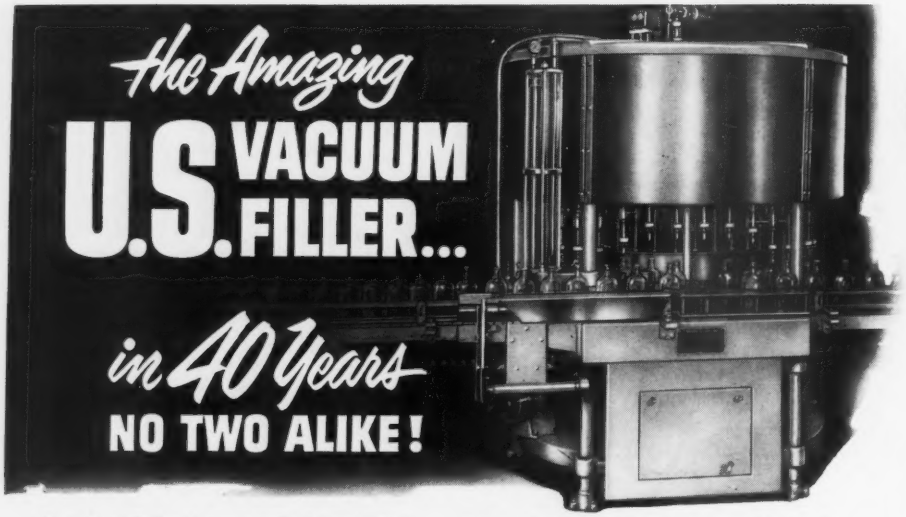
The Manufacturing Chemists' Association, 1625 Ete St., N. W., Washington 6, D. C., has published a manual containing almost 300 newly recommended abbreviations for the reagent and fine chemicals field. Intended primarily for mechanical data and processing systems in which space is limited, and not for more technical or scientific applications, the recommended standards are the result of a study by an MCA group on request of member firms.

Chemicals

The Dow Chemical Company, Midland, Mich., has released the latest edition of its products catalogue describing properties and uses of 375 industrial, pharmaceutical and agricultural chemicals. It includes a cross-reference index.

Automatic Air Cleaners

U. S. Bottlers Machinery Company, 4015 N. Rockwell St., Chicago, Ill., has made available an 8-page bulletin describing two new models of the Sanitair Automatic Air Cleaner for cleaning new containers.



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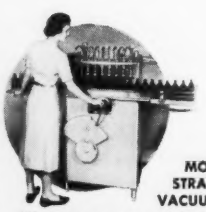

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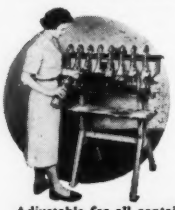

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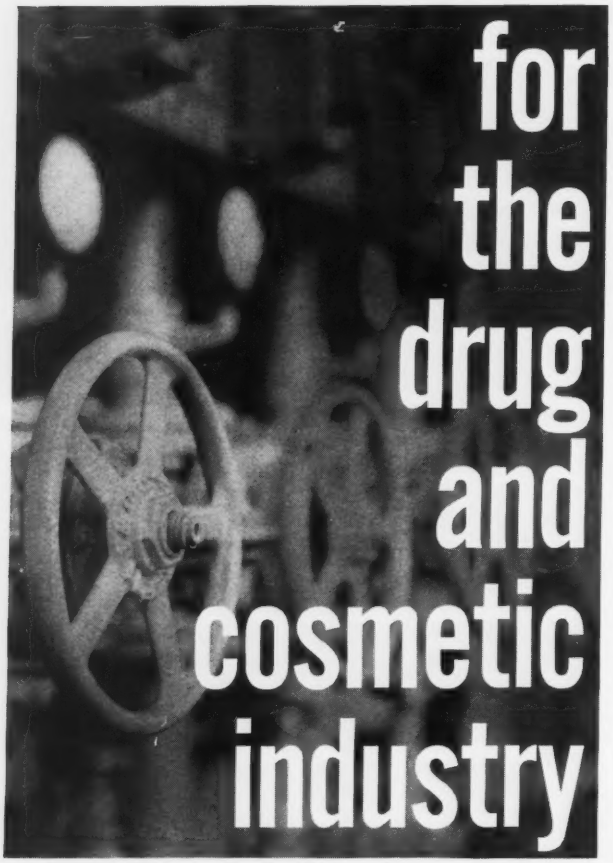

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Skin Research

Hair and Epidermal Keratins

The term "keratin" does not signify a single chemical compound. There are many types of keratin, and some of these have obvious physical differences such as hair, nails, and horn. Moreover keratin from a given source is not necessarily constant in its chemical composition. These alterations in its constitution depend on several factors that operate during the process of keratinization. Thus the rate of keratinization, mechanical friction, irradiation, and changes in the state of the underlying dermis may all influence the structure and composition of the keratin produced. The dynamics of keratinization are therefore complex and its study requires examination not only of the keratin itself but of the cells that are becoming keratinized, and also of the underlying dermis.

The effects of enzymes and chemicals on normal inner root sheaths, hairs, and epidermal keratins have been studied by A. Jarrett (*Brit. J. Dermatol* 70: 271, 1958) by fluorescence microscopy, polaroscopy and ultra-violet absorption studies.

Ribonuclease has a profound effect on inner root sheath keratin of normal human skin. It is thought that this indicates the presence of ribonuclear protein within the keratin molecule. Normal hair and epidermal keratins do not appear to contain nuclear proteins, and they fluoresce a different color from inner root sheath keratin when fluorochromed with thioflavine T.

Minimal ultra-violet irradiation also markedly affects the inner root sheaths, and differentiates this keratin from normal hair and epidermal keratins.

Deoxyribonuclease, trypsin, and thioglycolic acid had no effect on inner root sheath keratin when examined by the methods described.

The ribonuclear proteins in root sheath keratin may be bound to the disulfide linkages of the keratin molecule.

Ultra-violet absorption measurements were made on the inner root sheath keratin. There was evidence that a small amount of ribonuclear protein is present in this keratin, and is probably closely bound to the molecule. Confirmation of the considerable effects of ribonuclease on root sheath keratin was also obtained by this method.

Topical Steroids

The double-blind paired-comparison method was used by I. L. Schemberg, S. I. Askovitz and M. G. Greenberg (A.M.A. Arch. Dermatol. 78: 490, 1958) in studying the effect of three steroid lotions and a control lotion in 510 patients with inflammatory dermatoses.

A newly devised statistical method was employed which utilizes the large percentage of patients in whom there was no difference in effect and which weights degree of difference of response to the two agents studied.

In 177 patients in whom 0.1 per cent fludrocortisone lotion was compared with control lotion base, no statistically significant difference in effect could be demonstrated.

Analysis by age, sex, diagnosis, skin thickness, and presence or absence of stratum corneum in dermatitic areas revealed no group in which there was a significant benefit from the steroid lotion as compared with the control lotion.

No significant difference was found in 217 patients between the effect of 0.1 per cent fludrocortisone lotion and 1.0 per cent hydrocortisone lotion nor in 116 patients between 1.0 per cent hydrocortisone lotion and 1.0 per cent prednisolone lotion.

Comment: This study comes up with conclusion that the control placebo lotion is as effective as fludrocortisone lotion, that fludrocortisone is as effective as hydrocortisone and hydrocortisone is as effective as prednisolone; in short, all the steroids work no better than a placebo. Since past evidence is certainly against this conclusion, then the newly devised statistical method ought to be examined very carefully. Perhaps there should be an untreated as well as a placebo-treated control to measure the degree of improvement caused by the elapse of time as well as by the psychological placebo effect and the drug tested.

Aluminum Antiperspirants

A molar solution of aluminum chloride (13.4 per cent) with a pH value of 1.6-2.0 and containing one per cent of the wetting agent Triton X-100 was applied to the arms of subjects twice a day for three days by N. Hunziger and R. Brun (*Dermatologica*, 117: 200, 1958). After this treatment, sweating was caused by iontophoresis of pilocarpine and measured with a Prussian blue test. In eight persons, sweating was diminished for from 15 to 24 days; in seven cases, erythema lasting several days was caused by the solution. In analogous tests made with aluminum nitrate, the duration of action was only 7 to 10 days. When the pH of the aluminum salt solution was reduced to 2.8-3.8 by means of sodium carbonate, the antiperspirant action was very slight and of short duration (about 48 hours). The solutions also showed heavy precipitates after several days.

The acidity was then reduced by heating the crystalline aluminum salt to remove part of the acid; the basic aluminum salt thus obtained had a pH value of 3.8 to 4.0 in 10 per cent solution. Solutions with a pH value of 2.5 to 3.1 were made by mixing low and high pH solutions as required. Solutions with pH values of 2.5, 3.1 and 3.9 prepared in this way have the same activity in terms of efficiency and duration of antiperspirant action as the solution with the pH value of 1.8. However, the 3.9 pH solution in four persons caused no erythema, one of seven showed irritation with the 3.1 solution and all three with the 2.5 solution. Similar results followed the use of aluminum nitrate solutions adjusted to pH values of 2.5 and 3.1, duration of effect being from seven to 10 days. Daily application of a solution of basic aluminum chloride with one per cent of Triton X-100 adjusted to a pH value of 3.9 to one axilla, the other remaining as control, produced inhibition of perspiration in eight subjects—in four after one application, in two after two applications and in two others after three and five applications. Differences in the production of perspiration by the axillas was noted for eight to 15 days days in three subjects who had undergone two, three and five treatments.

Chloranil for Psoriasis

The present paper details experience of W. D. Teichmann and P. N. Horvath (South Med. J. 50: 1521, 1957) with chloranil (tetrachloro p-benzoquinone) in the treatment of 93 cases of psoriasis over a period of two years.

Chloranil was incorporated in polyethylene glycol-1500 in concentrations of 5 and 10 per cent. The patients were instructed to apply the ointment thinly at bedtime, and to rub it in very thoroughly so that no excess remained. Chloranil stains the skin a light brown which usually is not troublesome, but if desired may be removed by wiping with a fat solvent such as petroleum benzin.

The clinical appearance of the lesions was rated according to the classification of "much improved," denoting at least a 50 per cent resolution of the lesion, and "improved" referring to any resolution up to 50 per cent.

The length of the treatment extended primarily from two weeks to three months, although some cases required as much as eight months.

The process of resolution is very similar to that of chrysarobin or coal tar therapy. The lesions first lose their scales, become less elevated and, in the most responsive cases, finally break up into small areas and fade away. The most marked improvement occurs during the first month. In several cases the lesions retrogressed when the treatment was stopped, and improved again on reapplication of the drug. No post-treatment leukoderma was observed.

The antipsoriatic effect of chloranil approaches that of chrysarobin and is substantially free of the irritations and sensitization so frequently encountered with chrysarobin therapy.

Skin Antibacterial

R. B. Coles et al. (*Brit. Med. J.* 1958, p. 1014) recently carried out a preliminary clinical investigation of a new preparation claimed to have a wide spectrum of activity against pyococcal organisms, *Candida albicans*, and some fungi. This substance, dequalinium (decamethylene bis-(4-aminoquinaldinium) chloride), is marketed by Allen and Hanburys Ltd. as "dequadin."

The wide antibacterial activity of dequalinium *in vitro* was reported by Babbs *et al.*, who found that it inhibited the growth of all of 21 species of pathogenic bacteria tested, including Gram-positive, Gram-negative, penicillin-resistant, and acid-fast bacteria; and some fungi. In a concentration of 100 μg. per ml. at 20° C. it destroyed within one hour 99.99 per cent of organisms in a suspension of *Staphylococcus aureus*. Its activity was not inhibited by serum.

Clinical reports of the use of dequalinium for its local antibacterial action have been published by Trotter and by Fowler and Jones. The former used dequalinium chloride in gelatin sponge as a bacteriostatic and hemostatic dressing after dental extractions in over 900 patients, and found it effective in counteracting and preventing sepsis and promoting healing. Fowler and Jones used a powder containing dequalinium chloride 0.1 per cent as a wound dressing in veterinary practice. The powder was applied topically to accidental and surgical wounds in over 100 animals and was effective in controlling infections due to the common bacterial contaminants occurring in infected wounds in animals.

In general the authors found dequalinium to be non-irritant even when applied to mucous membranes and the skin of infants. However, three cases of allergic sensitization were encountered. One of these was to the base and two to the active ingredient. This figure of 1.2 per cent is low enough to be acceptable in practice, but occasional cases of sensitization will probably arise, as with other antibiotic and antiseptic agents.

Findings may be listed as follows:

Dequalinium is a clean, useful agent in impetigo, and it has the great advantage of not creating antibiotic-resistant strains of staphylococci. The paint is particularly valuable in impetigo of hairy areas.

Dequalinium constitutes an effective and most useful application in all forms of neonatal sepsis.

Intertrigo, in which monilial or pyococcal infection is an important factor, responds well to dequalinium. (It was also very effective in a case of monilial balanitis.)

Chronic paronychia of pyogenic or monilial origin responded well.

It may be used with safety and success in conditions in which infection is present together with eczematous changes in the skin. It has no specific value in non-infective conditions, but the cream appears to be soothing and is pleasant to use. It may have some value as a prophylactic in such condtions as acute cheiropompholyx, eczematized ringworm of the feet, and eczema of the scalp, all of which are particularly prone to secondary infection.

Some 37 cases of atopic eczema, pruritus aniet vulvi, intertrigo, and neurodermatitis have been treated with dequalinium cream containing 0.5 per cent of prednisolone. This mixture showed a superior effect to the plain dequalinium cream, when used in these states, where itching and reflex rubbing are very pronounced. There were no failures in this short series, nor was any sensitization seen.

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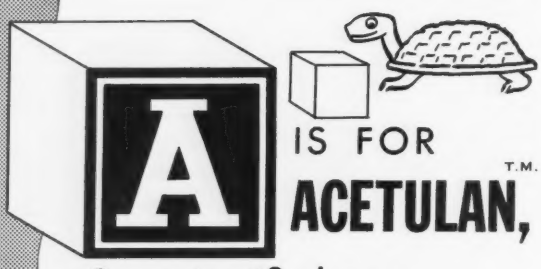

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(*Continued from page 601*)

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5	Ethyl vanillin
30	Rhodinol
5	Aldehyde C-14 10% in DEP
5	Phenylethyl propionate
15	Lemon oil Italian
1	Oak moss resin
2	Aldehyde C-12 MNA 10% in DEO
8	Indole 10% in DEP
4	Styrallyl propionate
4	Rose otto
3	Citronellyl oxyacetaldehyde
23	Diethyl phthalate
450	

CYCLAMEN

The Cyclamen is a most attractive flower, usually seen as a medium sized potted greenhouse plant with large, exotically shaped white or pink petals, and no odor. The most fragrant member of this flower family is the cyclamen of the Alps, a tiny pink flower slightly larger than a violet. It is known in Germany as "Alpinveilchen" ("Alpine Violet"), a name which also applies to the chemical Paraisopropyl methyl (alpha) hydrocinnamic aldehyde whose odor closely resembles the flowers.

The fragrance of the cyclamen flower is predominantly a fresh lily, with substantial lilac character, and occasionally a touch of the hyacinth or narcissus. Most perfumers use a delicate sweet musk background for this fragrance, usually musk ketone and/or musk xylol.

The cyclamen fragrance does not seem to have much attraction as an extract or cologne product. Its peculiar lily-like odor does find some application in cosmetic products, because it covers up the fatty note of the cosmetic bases, yet shows up well as a clear fresh, flowery effect quite appropriate for cosmetics when they are applied to the skin. Furthermore the cyclamen fragrance is composed of materials which produce minimum irritation and no discoloration, factors highly important in cosmetic work.

The following are the "purpose" classifications of the synthetic components:

Basics. Paraisopropyl alphamethyl hydrocinnamic aldehyde, "Cumin" ketone, hydroxycitronellal, terpineol, alpha ionone, methyl ionone, hydroxycitronellal dimethyl acetal.

Blenders. Rhodinol, citronellol, geraniol, dimethyl octanol, oil of bergamot, oil of lemon Californian (or Italian), oil sweet orange, hydratropyl alcohol, phenylethyl alcohol, benzyl alcohol, tolyl alcohol, benzyl acetate, "Astrotone" BR, linalool, citronellyl propionate.

Adjuvants. Phenylacetaldehyde trimethylene glycol acetal, hydratropic aldehyde trimethylene glycol acetal, phenylacetaldehyde propylene glycol acetal, citronellyl oxyacetaldehyde, diethyl hydroquinone,

(*Continued on page 672*)

Reader's Questions . . .

Unstable Creams and Lotions: *We have had occasional problems with the separation of creams and lotions, both in the early formulations and sometimes even after the product has been manufactured on a production scale. Are there any special factors that can be considered in advance to minimize these problems?* SAN JUAN

Oddly enough, manufacturing-scale problems are somewhat the easier to handle in this case. It is easier to maintain uniformity of processing on a larger than on a smaller scale. Important matters are the same type and duration of stirring for each batch, the same temperature of mixing and the same rate of cooling. All of these are important because the emulsion, liquid or cream, is already a heterogeneous system that must end as a homogeneous product, and any additional variation will certainly cause trouble. Most serious of all, and inexcusable, is substituting raw materials from new sources of supply without making very sure in advance that the product will not be adversely affected. Development of the formula on the first laboratory scale should in every case be followed up not only with stability testing of the laboratory product, but also with tests of the same product made in pilot and then in full-scale equipment. The manipulation of a one kilogram batch in laboratory glassware with laboratory stirrers is far removed from the manufacture of a 100 or 1,000 gallon batch. Stirring, for instance, in the small vessel, may be more effective with a relatively poor agitator than a more efficient stirrer in a large tank. The rate of cooling, often a vital factor in stability, will depend directly on the size of the batch. Homogenizers and colloid mills, when properly used, permit the use of smaller proportions of emulsifiers, assure uniformity of processing conditions, and usually provide a better as well as a more stable product. When used with preparations containing gums, however, they may destroy the fiber structure and spoil the product. Incompatibilities and bacterial attack causing emulsion breakdown, ought to be anticipated at the earliest stages of writing the tentative formula.

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(*Continued from page 670*)

amyl salicylate, heliotropine, paramethyl hydratropic aldehyde, anisic aldehyde, para methoxy acetophenone, methyl heptine carbonate, phenylpropyl alcohol, styrallyl acetate and propionate, cinnamic alcohol, methyl cinnamate, Ylang Bourbon Extra, ylang absolute, para-cresyl caprylate, oil geranium.

Fixatives. Vanillin, coumarin, musk ketone, musk ambrette, musk xylol, benzyl isoeugenol, styrax resin, olibanum resin, benzoin resin.

Naturals. Jasmin, rose, tuberose, orange flower, narcissus, and jonquille absolutes. Occasionally traces of cassie absolute are used for a green nuance.

	CYCLAMEN DES ALPES E.019
15	"Alpine Violet" standard
30	Hydroxycitronellal
10	Hydroxycitronellyl dimethyl acetal
2	"Cumin" ketone
8	Rhodinol
15	Linalool ex bois de rose
5	Ylang Bourbon extra
6	Oil lemon Italian
10	Benzyl acetate
2	Benzyl propionate
2	Amyl cinnamic aldehyde
1	Coumarin
4	Musk ketone
5	Methyl ionone
4	Alpha ionone
10	Alpha terpineol (best grade)
5	Oil geranium Algerian
1	Phenylethyl propionate
3	Hydratropyl alcohol
4	Cinnamic alcohol
5	Tolyl alcohol
5	Linalyl acetate
4	Petitgrain South American
1	Aldehyde C-14 10% in DEP.
4	Phenylacetaldehyde trimethylene glycol acetal
14	Benzyl alcohol
175	

This Cyclamen des Alpes E.019 is illustrative of the fragrance for cosmetics. It may also serve as a flowery adjuvant for the lighter type of floral fantasies.

ORCHID AND CLOVER

The components of both orchid and clover fragrances are so closely allied that they are discussed as a team.

The orchid fragrance presents a peculiar problem to the perfumer. There are innumerable varieties of this showy flower: some have a definite, pleasant fragrance, others none, and still others have a vile odor. The pleasant fragrances imitate many such well-known scents as: tuberose, narcissus, rose, hyacinth, lilac, carnation, honey, musk, lemon, muguet, heliotrope, cinnamon, and in fact nearly every floral or spicy fragrance.

In view of this confusion a base for the orchid fragrance was established which is more traditional than accurate. Today, the "orchid" fragrance is basically built around the salicylic esters and other materials

of the muguet class. One or more secondary compositions (any flower or spice fragrance) is then added to this base for modification. The clover fragrance is fundamentally a modification of the orchid with coumarin, lavender and new mown hay characteristics.

The "purpose" classification of orchid and clover components are as follows:

Basics. Isobutyl salicylate, amyl salicylate, methyl isobutyl carbinyl salicylate, n-hexyl salicylate, dimethyl salicylate (ortho methoxy methyl benzoate), isobutyl dimethyl gentisate (3, 6 dimethoxy isobutyl benzoate), isobutyl benzoate, amyl benzoate, dimethyl toluhydroquinone.

Blenders. Rhodinol, citronellol, geraniol, dimethyl octanol, Hydratropyl alcohol, nerol, phenylethyl alcohol, tolyl alcohol, benzyl alcohol, benzyl acetate, benzyl propionate, hydratropyl propionate, phenylethyl propionate, phenylethyl isovalerate.

Adjuvants. Hydroxycitronellal, phenylacetic aldehyde, tolyl aldehyde, anisic aldehyde, heliotropine, ylang Bourbon extra, ylang absolute, alpha ionone, methyl ionone, isoeugenol, methyl cinnamate, aldehyde C-12 MNA, aldehyde "Veronol," para-methyl hydratropic aldehyde, hydratropic aldehyde, citronellyl oxyacetaldehyde, oak moss resinoid, oil Galbanum, phenyl propyl aldehyde, "Palatone."

Fixatives. Musk ambrette, musk ketone, balsam Peru, phenylacetic acid, benzoin resinoid, coumarin, vanillin, castoreum resinoid, benzyl isoeugenol, benzyl salicylate, benzyl phenylacetate.

Naturals. Jasmin, rose, orange flower, narcissus, jonquille, tuberose, genet, cassie absolutes, rose otto.

ORCHID BASE E.020

55	Amyl salicylate
25	Anisic aldehyde
30	Rhodinol
40	Isobutyl salicylate
10	Heliotropine
2	Dimethyl hydroquinone
5	Acetophenone
15	Linalool
16	Phenylethyl alcohol
5	"Cumin" ketone
4	Coumarin
10	Phenylacetaldehyde 50% in benzyl alcohol
10	Hydroxycitronellal
2	"Veronol" aldehyde 10% in DEP
4	Phenylacetic acid
5	Ylang Bourbon
2	Vanillin
4	Methyl ionone
1	Oak moss resin
1	Alpha ionone
2	Citronellyl oxyacetaldehyde
2	"Palatone 5% in phenylethyl alcohol
6	Diethyl phthalate
250	

To illustrate the close relationship between Orchid and Clover, the following composition, a modification

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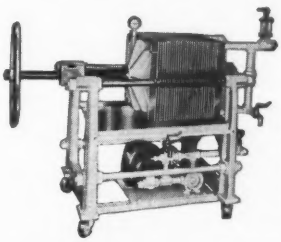

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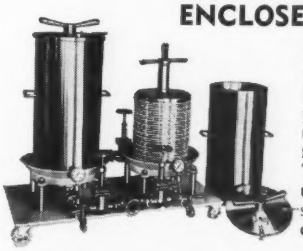

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of the foregoing Orchid Base E.020, is shown.

WHITE CLOVER E.021

250	Orchid base E.020
16	Coumarin
15	Ylang Bourbon extra
3	Dimethyl hydroquinone
6	Musk ketone
7	Oil bergamot
3	Lavender 40/42
2	Oak moss resin
3	Benzyl acetate
3	"Palatone" 5% in phenylethyl alcohol
5	Heliotropine
10	Amyl salicylate
2	Vanillin
2	Acetophenone
3	Isobutyl phenylacetate
2	Tuberyl acetate
13	Benzyl alcohol
325	

Special Comment on Cyclamen, Orchid, and Clover. These three fragrances do not enjoy much popularity by themselves as extracts or colognes, although cyclamen does have some importance in cosmetic perfumery. However, "fragments" or small parts of these compositions are used extensively in building other compositions. For example, the 15 Ylang, 16 Coumarin and 10 Amyl Salicylate in the above formula are just such a "fragment" that finds much use in fougeres and many cologne types. Many such fragments can be picked out of other compositions and used in many circumstances. The student perfumer should study these fragrances very carefully as he compounds them, to select those portions which he thinks may be useful to him. The cyclamen, orchid and clover have been presented here more as a source of ideas than as complete fragrances.

SCC SEMINAR

(*Continued from page 589*)

the consumer expects and some measure of the product's appeal. *Norman Ishler* considered consumer testing to be a variable tool requiring care in its use. With an appropriately selected group of test subjects, the study can help the technologist in the development of the final product. *Noel Swartz* discussed measurement techniques and factors that can affect judgment. The latter include color, opinions, preconceived notions. The scale of values in determining the desirability of the product may range from best to worst in from five to nine stages.

COATED TABLETS

(*Continued from page 602*)

TABLE I. DISINTEGRATION TIMES IN MINUTES OF COMMERCIALLY AVAILABLE COATED TABLETS

Active Ingredients		First	Second	Avge.
1. Carbozochrome Salicylate	1.0 mg.	19	21	20
2. Hydralazine HCl	25 mg.	22	24	23
3. Hydroxyzine HCl	10 mg.	13	12	12

Active Ingredients		First	Second	Avge.
4. Thiamine HCl	0.5 mg.	10	9	10
Vitamin D	200 U.S.P. units			
Exsiccated $FeSO_4$	0.097 Gm.			
Calcium Phosphate (dibasic)	0.24 Gm.			
5. Lemon Bioflavonoid Complex	100 mg.	26	26	26
Rutin	100 mg.			
Ascorbic Acid	100 mg.			
6. Cholic Acid	0.1 Gm.	37	32	34
Ketocholanic Acid	0.1 Gm.			
7. Stenediol	5 mg.	45	48	46
Ascorbic Acid	50 mg.			
Thiamine HCl	2 mg.			
Riboflavin	3 mg.			
Pyridoxine HCl	1 mg.			
Vitamin B_{12}	2.5 mcg.			
Niacinamide	20 mg.			
Folic Acid	0.5 mg.			
Vitamin A	5000 U.S.P. units			
Vitamin D_2	500 U.S.P. units			
Ferrous Gluconate	75 mg.			
Dibasic Calcium Phosphate	200 mg.			
Manganese Hypophosphite	0.5 mg.			
Dibasic Magnesium Phosphate	20 mg.			
8. Chlor-trimeton Maleate	2 mg.	9	8	8
Acetylsalicylic Acid	250 mg.			
Acetophenetidin	150 mg.			
Caffeine	30 mg.			
9. Vitamin A (synthetic)	10,000 U.S.P. units	13	15	14
Vitamin D (viosterol)	1,000 U.S.P. units			
Thiamine Mononitrate	5 mg.			
Riboflavin	5 mg.			
Nicotinamide	25 mg.			
Pyridoxine HCl	1.5 mg.			
Vitamin B_{12} (conc.)	1 mcg.			
Calcium Pantothenate	5 mg.			
Ascorbic Acid	100 mg.			
10. Thyroid	22 mg.	22	20	21
dl-desoxyephedrine HCl	4 mg.			
Riboflavin	2 mg.			
Thiamine HCl	3 mg.			
Nicotinamide	10 mg.			
Ascorbic Acid	20 mg.			
11. Hyoscyamus HBr	0.255 mg.	30	47	38
Atropine Sulfate	0.019 mg.			
Scopolamine HBr	0.006 mg.			
Vinbarbital	30.0 mg.			
12. Lanatoside A	47 %	7	5	6
Lanatoside B	16 %			
Lanatoside C	37 %			
13. Hyoscyamine SO_4	0.1037 mg.	15	16	16
Hyoscine HBr	0.0065 mg.			
Atropine SO_4	0.0194 mg.			
Phenobarbital	16 mg.			
Thiamine HCl	3 mg.			
Riboflavin	2 mg.			
Nicotinamide	10 mg.			
Pyridoxine HCl	0.5 mg.			
Calcium Pantothenate	2 mg.			
14. Kheelin (from Amni Visnaga)	40 mg.	18	20	19
15. Exsiccated $FeSO_4$	0.2 Gm.	22	24	23
16. Phenobarbital	0.1 Gm.	9	9	9
17. Pyrilamine Maleate	25 mg.	4	4	4
18. 3-diethylamino-1-cyclo-hexyltridihexethide 1-phenyl 1-propanol ethiodide	25 mg.	17	16	16
19. Vitamin A (synthetic)	25,000 U.S.P. units	18	17	18
Vitamin D (viosterol)	1,000 U.S.P. units			
Thiamine Mononitrate	10 mg.			
Riboflavin	5 mg.			
Nicotinamide	150 mg.			
Vitamin B_{12}	6 mcg.			
Ascorbic Acid	150 mg.			
20. Dephenmethanil methylsulfate	100 mg.	35	37	36
Phenobarbital	16 mg.			
21. Conjugated Estrogens (equine)	2.5 mg.	35	33	34
22. Propantheline Br	15 mg.	4	5	4
Phenobarbital	15 mg.			
23. Tripelennamine HCl	25 mg.	20	23	22
24. Diamino-ethoxy-azo benzene HCl	0.1 Gm.	14	14	14
25. Promazine HCl	50 mg.	13	13	13
26. Tetracycline	100 mg.	17	19	18
27. Chlorpromazine HCl	10 mg.	9	8	8
Dextro-amphetamine SO_4	2 mg.			
28. Chlorpromazine HCl	25 mg.	13	15	14

(Continued on page 676)

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distilled water was used as a disintegration medium.

A mean disintegration time of about twenty minutes in the stomach therefore seems to be satisfactory for most coated medications intended to be released in that region.

References

1. Contest Committee Meeting, Uliet, E., Drug and Allied Industries, 6, 4, 7, (1956).
2. Zoethout, W. D., and Tuttle, W. W., *Textbook of Physiology*, 11th Edition, C. V. Mosby Co., St. Louis, Mo., 1952, p. 369.
3. Goodman, L. S., and Gilman, A., *The Pharmacological Basis of Therapeutics*, 2nd Edition, The MacMillan Co., New York, 1956, p. 6.
4. Ewe, George, Prac. A. Ph. M. A., (1930): through Hoehm, W. M., Bulletin National Formulary Committee, **13**, 162, (1945).
5. Stephenson, D., and Smith, D. S., J. Pharm. and Pharmacol., **3**, 547, (1951).
6. Committee of Revision, United States Pharmacopeia, 15th Revision, Mack Publishing Co., Easton, Pa., 1955, p. 937.
7. Volckringer, J., Ann. Pharm. Franc. **7**, 697, (1949).
8. Meneses, M. F. L., and Huyck, C. L., Drug Standards, **23**, 17, (1955).

PATENT THOUGHTS AND TRENDS

(Continued from page 623)

Zotox for ointment and Zotos for hair waving supplies; Swfgro, Swfkill, and S-W-F on an illustration of an arrowhead and Swift's for fertilizers, insecticides, etc.; Armor with or without a drawing of a military tank and Armorply for metal-faced plywood; Jalowall for a combination wall panel with jalousie window insert and Jalcase, Jalloy and Jal-Duct for steel bars and metal wire; a drawing of three differently lengthened female torsos with the term Alba and a drawing of three women of different heights wearing hosiery, both for hosiery; Do It Yourself Show as a service mark for promoting the sale of home building and repairing products at expositions, fairs, etc., and U-Do-It for patching plaster, cements, adhesives, etc.; Xcel for motor fuel oil and X-L-O for lubricating oils and greases; Telix for watches and parts thereof and Timex for clocks and watches; the letter "J" prominently displayed within an 8-pointed star for watches, clocks and parts thereof and Starwhite or a five-pointed star for watch cases; Tropic Air for windows, screens, doors and jalousies and Tropic-Aire for electrical household appliances; Copymaster for dry process reproducing machines and Copymaker for table tripods used as camera accessories; Bar-B-Quik for barbecued chicken and barbecue sauce and Bar-Be Chick for a similar canned product; Karbon King with the head of a playing card king for carbon removers sold to industrial users and White King for soap sold primarily to the general public; Servue with a picture of a penguin for commercial refrigerated display cases and Servel for household refrigerators, home freezers, etc.; Opcofilm for industrial lubricants and Nopco for similar goods; Hair Dream for hair dressing preparations and Drene for shampoo; Protecto for air conditioner covers and Pro-Tect-U for awnings, jalousies, etc.; Miss Marjorie's for chocolate covered cherries and Margie Bell for candy; Pink Lady with a picture of a lady for wines and Pink Lady for citrus fruits and fruit juices, Ag Chem for a foliar nutrient and Agrico for identi-

cal goods; Rally Squad on a drawing of a megaphone for shoes and Bally for similar goods; Kleenap and Havanap, both for paper napkins; Placin for analgesic tablets and Dolcin for a medicinal preparation for the relief of the rheumatoid state; Polyfilm for polyethylene film in sheet form and Polyken for pressure-sensitive film and polyethylene film; Ingenue for brassiers and Ingenue for women's shoes; Richfield for hosiery and Richfield for gasoline; D'Aqua for male outerwear and Daks or Padak for goods in part identical; Permanized for cotton and synthetic piece goods, underwear and outerwear and Redmanized for goods in part identical; Rogers Bits O' Honey for canned peas and canned carrots and Bit-O-Honey for candy; Cenco for paper and plastic bags and the same word for a variety of laboratory and scientific apparatus; Dog-E-Dite for a dietary supplement for dogs and Doggie Dinner for dog food; Mugs Up for root beer and Seven Up or 7 Up for a lemon-lime soft drink; Mugs Up and Old Fashioned Mug, both for root beer; Harvestaire superimposed upon a large stylized "H" enclosed within a disk, for harvesters and parts thereof, and The Harvestor or Harvestor for agricultural combines.

(2) Oppositions sustained by the examiner but dismissed by the Commissioner.

The following were held on appeal not likely to be confused:—a representation of a blue horseshoe with the words Blue Horseshoe Brand for dungarees and "Horseshoe" Collar for suits and overcoats; Janmarie for hair preparations, hair creams and lotions, and Jean Marie Farina for eau de cologne and soap; Tiny Titan with the figure of a man holding a horseshoe magnet for magnetic base tools and Miti-Mite with the drawing of a man and a horseshoe magnet for magnets and magnetic base holders; Ideal with a design for coin-controlled refrigerated vendors and Ideal for refrigerated cabinets for foods and beverages; Apeco Auto-Stat for photocopiers and supplies therefor and Photostat for similar products; Baby Posture for crib mattresses and Posturepedic for mattresses and box springs, The Range Rider for denim jeans and western pants and Rough Rider for better quality slacks, pants and skirts; Martinique for woolen piece goods and the same word for shoes; Belle Point with a drawing of an arrow and bell for male and female wearing apparel and Arrow with an illustration of an arrow for menswear; Tropic Air for a chemical room deodorizing compound and Tropic-Aire for air conditioners; Do-It-E-Z for paint brushes and U-Do-It for patching cement, putty and related products; Opaqueen for cotton sateen fabrics used as linings for draperies and Visqueen for plastic film sold to textile converters and made into draperies; and Frosty Seas and Seafrost both for frozen sea food products.

(3) Oppositions sustained by both the examiner and the Commissioner:

Both tribunals found the following to be confusing-

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(4) Oppositions dismissed by the examiner but sustained by the Commissioner:

The opposer was successful on appeal in the following 11 cases: Likelihood of confusion was found between Belcon for selenium rectifiers and Belcap for electrical condensers; Slim-Ice for dietetic water ice as compared to Slim for skim milk and Slim Freeze for frozen dessert; Tropicaire for aquarium aerators and Tropic-Aire for electric blankets and electric household appliances; Pektizyme for an enzyme clarifier for fruit juices and wine and Pectinol and

Pectasin for a closely related product; Beautyshield for waterproofing coatings and masonry paints and Beautykote for ready mixed paints and varnishes; Rubb Air for rubberized hair or fibre for packaging purposes and Rubbair for doors filled with rubberized hair; Plextrum for an acrylic masonry coating and Plextone for multiple colored industrial coating finishes; Hollymatic for automatic water heaters and cooking ranges and the same word for electrically operated hamburger patty molding machines; Dermatone for liquid hand cleaner and the same word for antiseptic toilet soap and ointment for the treatment of acne; Egg-O-Mat for a coin-operated egg vending machine and Egomatic for apparatus for candling, grading and handling eggs; Gaines with a picture of a dog's head for a composition for cleaning household appliances and Gaines Dog Meal with an illustration of a bounding dog for dog food.

RECENT PATENTS

2,846,452—Upjohn—5(10) Estrenes.

2,846,453—G. D. Searle—A-Ring-Acylated Estrones.

2,846,454—Am. Cyanamid—Steroids.

2,846,455—Lab. Francais de Chim.—Estradiol-17-Hexahydrobenzoate.

2,846,456—Merck—Steroid 21-Aldehydes.

2,846,463—G. D. Searle—6-Aryloxyacyl Dehydroabietic Acid.

2,846,465—Ethicon—Carbamates of Bicyclic Alcohols.

2,846,473 — Monsanto — Bactericidal-N-(Halophenyl) N'-(Allyl)-N'-(Alkoxyphenyl) Ureas.

2,847,344 — Sterling Drug — Lower Alkyl-5-Amino-(Tert. Aminoalkoxy) Benzoates.

2,847,346—Lloyd Bros.—Laxative Compositions Containing di-octyl Na Sulfosuccinate and Dihydroxy anthraquinone.

2,847,347,-50—Ortho Pharm. — Improved Thromoboplastin.

2,847,348-9—Ortho Pharm.—Plasma Fractionation.

2,847,351—Gillette—Hair Waving Composition Comprising a Disulfide and Either a Non-Corresponding Mercapto or Thiorurea Dioxide.

2,847,412-25—Merck—18-Oxygenated Etioholenic Acids.

2,847,413—Merck—5'-Disoxyriboflavin.

2,847,416 — Norwich Pharmacal — N-[1-(5-Nitro-2-Furyl) Ethylidene]-3-Amino-2-Oxazolidone.

2,847,422—G. D. Searle—Hydroxylated 2, 13-Dimethyl-7, 9 - Dioxopolyhydrophenanthrene - 1 - Propionic Acid Lactones.

2,847,424—Norwich Pharmacal—Halogenated Esters of Nitro-furyl Alcohol.

2,847,426—UCLAF (France)—Prepn. of Tachysterol.

2,847,427 — G. D. Searle — Androstadien-17-Alkylsulfones and Sulfoxides.

2,847,428—Sterling Drug—Pregnan-2-Ol-3, 20-Dione, Allopregnan-2-Ol-3, 20-Dione and Esters.

2,847,430—Upjohn—2-Methylene-3-Keto Steroids.

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2,847,451—National Distillers—Acetyl Methionine Nitrite.

2,847,454—Ethicon—Carbamate of a Tetracyclic Alcohol.

2,847,455—Nat. Research Corp. 12-Carboxyamido-11 or 12- Octadecenoic Acids.

2,847,457—Wise Alumni R. F.—Steroid Intermediates.

2,847,471—Olin Mathieson—Tetracycline Purification.

2,847,474—U. S. Vitamin—2-(4-Bromophenyl)-1, 3-Diketohydrindene.

2,847,479—Hoffmann-La Roche—3-Cyclohexylidenepropyl Ethinyl Methyl Carbinol.

2,848,308 — Miles Labs. — Composition for Detecting Glucose in Urine.

2,848,331—Du Pont—Growth Promoter for Poultry.

2,848,364—Cilaq (Switzerland)—Acetoacetanilides Acaricedes.

2,848,365—Upjohn—Purification of Neomycin by Chromatography.

2,848,367—Am. Cyanamid—Augmentative Intrinsic Factor.

2,848,368—H. Witt (Germany)—Measuring Blood Sedimentation Rate.

2,848,369 — Soc. Monsavan-l Oreal (France) — Hair Dye.

2,848,371—Noda Ind. & Scientific R. L. (Japan)—New Proteolytic Enzyme.

2,848,448—Smith, Kline & French Labs.—N′-Acyl-N′-(5-Ethyl-1, 2, 3-Thiadiazole-2-Yl) Sulfanilamides.

2,848,449—Abbott Labs.—Morpholinomethyl Ketones.

2,848,450—W. R. Grace & Co.—Morpholinium Chlorides.

2,848,454 — Lakeside Labs. — Mercapto Derivatives of Mercurated 1-Pyridyl-3-Allylureas.

2,848,455—Ciba — α-(P-Aminophenyl)-α-Lower Alkyl Glutarimides.

2,848,457—Dr. F. Raschig (Germany)—Thiocyanoalkylpyridines.

2,848,459—Olin Mathieson—Carbamic Acid Esters.

2,848,463—G. N. R. D. Patent Holdings (England)—Steroids.

2,848,464-5—Olin Mathieson—2-Bromo-9α-Fluoro Steroids.

2,848,481—Soc. Farmaceutici Italia—Guanidines.

2,849,369—Lab. O. M. (Switzerland) — Therapeutic Compositions of Cyanacetic Acid Hydrazide.

2,849,370—N. Terapeutisk Lab. (Denmark)—Injectable Insulin.

2,849,434—U.S.A.—S-(1, 2-Dichlorovinyl)-Glutathione.

2,849,448—Upjohn—Steroids.

2,849,453—Ciba—Piperidines.

2,849,454—Upjohn—Gamma (3-Indolyl)-Gamma-Keto-Propyl Phosphonic Acids.

2,849,455—Boyce Thompson Inst.—Alpha-Ethyl-Piperanyl Ether of Hydroxyalkanamides.

2,849,464—Upjohn—6-Methyl, 4, 3-Keto Androstenes.

2,849,490—Hoffmann-LaRoche—Hydrogenated Ketones.

2,849,491—Hoffmann-LaRoche — 6, 8-Dimethyl-5-Nonen-2-One.

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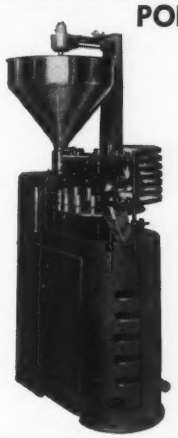

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2,850,426—Chemo Puro Mfg.—Anthelmintic Piperazine Phosphoric Acid Compositions.

2,850,498—Eli Lilly—1-Benzamido-1-Phenyl-3-Piperidinopropane.

2,850,499—G. D. Searle—β-Amino-α-Phenylethyl Chlorocarbanilates.

2,850,500—Sterling Drug—Acyloxy Arylpiperidines.

2,850,501—G. D. Searle—Basic Esters of 9-Pyrid (3, 4-b) Indole Alkanoic Acid.

2,850,509—Ethicon—Amides of Diketo Fatty Acids.

2,851,393—Ed. Geislich Sohne (Switzerland) — β-Diethylaminobutyric Acid Amlide Local Anesthetic.

2,851,454—G. D. Searle—1, 2-Epoxy-3, 17-Dioxygenated Androstane.

2,851,455—Olin Mathieson—21 Chloro Pregnanes.

2,851,457 — G. D. Searle — Amidinoalkylbenzothiazinones.

2,851,458-9—Burroughs Wellcome—Diquaternary Compounds.

2,851,460—Hynson, Westcott, & Dunning—Morpholino Ani-spasmodics.

2,851,463—Upjohn—Desalicetin.

2,851,466—Miles Labs.—Substituted Polyamines.

2,851,467—G. D. Searle—Alkylthiourea Derivatives of Kojic Acid.

2,851,470—Olin Mathieson—Steroids.

2,851,485—G. D. Searle—7-Alkanoyl Derivatives of Podocarpic Acid.

2,852,427—Diamond Alkali—2-Pipuonyloxazolidine.

2,852,429—Eli Lilly—Antibiotic Salts.

2,852,430—DuPont—Chloramphenicol Ester Compositions.

2,852,434—Chesebrough-Pond's—N-Soya-N-Ethyl Morpholinium Ethosulfate Cosmetic Emulsions.

2,852,505—Am. Cyanamid—Aminodeoxyglycosidopurines.

2,852,510 } —Ciba—Cycloheptadiene Heterocyclic Com-
2,852,528 } pounds.

2,852,511—Olin Mathieson—9α-Halo Steroids.

2,852,515—Sterling Drug—Tert. Aminoalkyl Substituted Tetrazoles.

2,852,518—Park, Davis—Di-Substituted Quinolines.

2,852,520—G. D. Searle—Trialkoxybenzoyloxyalkyl Derivatives Related to Norharman.

2,852,521-2—Ethicon—Dihydroxy and Diepoxy Stearic and Diketostearic Acids.

2,852,523-4—Am. Cyanamid—Diphenyl Oxadiazolidene Ones.

2,852,526—Sterling Drugs—Aminoindoles.

2,852,529—Merck—Aldosterone Intermediate.

2,852,531—Merck—Esters of 5-Oxocaprylic Acid.

2,852,536—Merck—Bisnorallocholenates.

2,852,537—Syntex—Cyclopentanophenanthrenes.

2,852,538—Upjohn—2-Lower Alkyl Steroids.

2,852,557—Schenley—4-Sulfonyl Derivatives of Salicylic Acid.

2,852,562—Sterling Drug—N-Hydrocarbyloxyalkyl-Aralkylamines.

2,853,418—Nichloas Prop. Ltd. (Australia)—Hypnotic

Composition Comprising a Barbituate.
2,853,422—H. K. Jarrett—Lipstick Composition.
2,853,423 — Olin Mathieson — Aerosol Sun-Screening Composition.
2,853,424—Schering A. G. (Germany)—X-Ray Contrast Agents.
2,853,486—Merck—21-Azido Steroids of Pregnane Series.
2,853,487—Hoffmann-LaRoche—Androstanediols.
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2,853,491—Geigy—Dioxo Pyrazolidines.
2,853,496—Merck—1-Alkoxy Ethinyl-2-Alkenyl Dodecahydrophenanthrenes.
2,853,497—Merck—5-Hydroxycaprylic Acids.
2,853,501—G. D. Searle—A-Ring Hydroxy Alkylated Estrone.
2,853,502—Olin Mathieson—Halo Androstenes.
2,853,512—Hoffmann-LaRoche — Process for Making Polyene Aldehydes.
2,854,375—L. F. Shackell—Phenolic Germicidal Composition.
2,854,378—Bristol Labs.—Tetracycline Suppository.
2,854,379 — Miles Labs. — Tranquilizing Composition Comprising 2-Ethyl-Cis-Crotonylurea.
2,854,380—Upjohn—Aqueous Therapeutic Composition Comprising Reserpine Propylene Glycol and Sorbitol.
2,854,381—Bristol Labs.—Resin Laxative Tablets Containing Hydrolyzed Keratin.
2,854,382—Procter & Gamble—Zirconyl Hydroxy Chloride Antiperspirant Compositions.
2,854,443—Saul & Co.—Alyl-Oxytocin.
2,854,450—Bristol Labs.—Antibiotics (Penicillin).
2,854,451—Merck—11-Keto-Tigogenin.
2,854,453—Merck—3-Acyloxy-7, 11, -Diketo-8-Dehydrotigogen.
2,854,454—P. R. Ulshafer—Rescinnamine.
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Drug & Cosmetic Industry, published monthly at Pittsfield, Mass., for October 1, 1958

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Drug Markets, Inc., 101 West 31 St., New York, N. Y.; Editor, Thomas R. Farrell, 101 West 31 St., New York, N. Y.; Managing Editor, Grace McGraw Smith, 101 West 31st St., New York, N. Y.; Business Manager, Frazer V. Sinclair, 101 West 31 St., New York 1, N. Y.

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